Soybean Digest

Calvin Hellman, Director from Ohio (See page 33).

Official Publication

AMERICAN SOYBEAN ASSOCIATION

VOLUME 10 • NUMBER 8 APRIL • 1950

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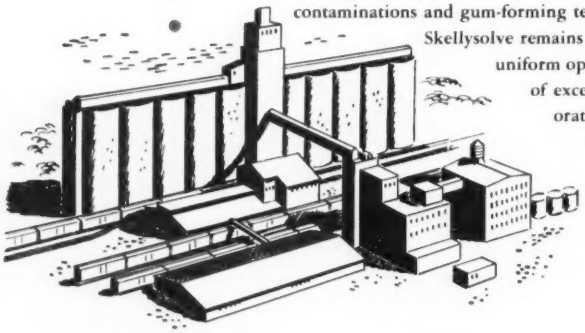

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THE *Soybean Digest*

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HUDSON, IOWA

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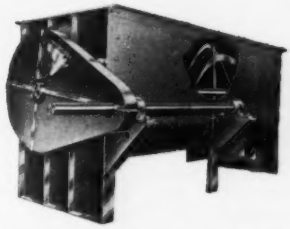

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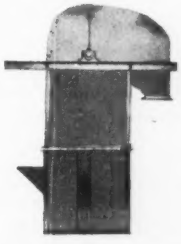

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EDITOR'S DESK

A VICTORY FOR PRIVATE TRADING

Apparently well-intended efforts by Congressman Vorys of Ohio to amend the ECA appropriations bill in the house of representatives were defeated through joint efforts of a number of organizations representing agriculture, including the American Soybean Association. The amendment would have reduced appropriations for ECA by 1 billion dollars, authorized the export of agricultural surpluses under control of CCC. Apparent intent by Vorys was to reduce the face of the ECA bill, make it appear in smaller figures.

But it had some dangerous implications. It would have given CCC a monopoly on all exports of agricultural materials, made private trading an impossibility under the ECA program. In effect, then, it would have more firmly intrenched the system of government export trading which we have set up. Once firmly established, those monopolies are hard to break. Certainly we need less, rather than more, government trading in agricultural commodities.

To the soybean industry the story might have been even worse. Only surplus commodities would have been exported. Until soybean prices sagged to or below the support levels there would have been no more exports, since CCC has ownership of no beans at the present time. So long as prices remain at the present favorable levels beans under loan and purchase agreement will be redeemed, not turned over to CCC. The net effect of the bill would have been the immediate pushing of soybean prices downward to support levels. Either prices would have moved downward or there would have been no bean exports until about June of 1951. By that time our entire export market would have disappeared.

At the same time the Vorys amendment would have made the ECA program difficult, if not impossible, to administer. It would have given the buyer no choice of commodities—he would be forced to take only those things officially in surplus. It would have crippled the program to the point where it would have become unworkable.

Defeat of the amendment by the National Cotton Council, American Soybean Association and six or eight other organizations was a wise move. A statement of policy to the chairman of the House agricultural committee plus personal contacts with influential committee members was all that was necessary in this case.

FEUD IS COSTLY TO AGRICULTURE

While agriculture's supposed leadership spends much of its time in personal feuds the foundation of farm programs evolved over a period of years is being chipped away. Kline and Brannan have been successful in getting the spotlight focused on themselves. They have been putting on a good show. But behind the scenes the big city newspapers, the columnists and other interests are carrying on a campaign designed to throw out all farm programs. The "rich" farmers, the potato "barons," subsidized agricultural interests, the eager "money-grabbers" labeled farmers are being ridiculed by cartoon and written word.

And while the show goes on out front, the spotlight glares and the music blares, the leadership which should be working for general agricultural welfare is too much engaged in feuding to realize what is happening. Forgotten, both to them and to the eager big city newspapers who are carrying on the campaign, are the days of the early 30's and the late 20's, when all of America was in desperate straits because agriculture had been allowed to sink into the mire. When agriculture came back, business came back. Without agricultural stability and purchases there can be no stability in industry. But when industry is prosperous, when the cities are still booming from war-time prosperity it is easy for a new crop of writers to create a new crisis. Today the "treasury-raiding" farmers are the scapegoat.

Major attention should be devoted to major problems. If our agricultural leadership of today can not do so, then perhaps we need a change. Personalities should not be allowed to spoil the first comparable income which the American farmer has enjoyed, so long as that enjoyment does not come at the expense of other groups.

BIG ACREAGE MEANS TROUBLE AHEAD

Will we have acreage allotments on soybeans in 1951? That is the $64 question. The answer lies with soybean producers. If we will but hold our acreage increase within reason—if we will use judgment in planning expansions of acreage—there need be no acreage controls on soybeans in 1951. We were successful in staving off acreage controls in 1950—over the loud protests of some officials in USDA—because we could show there has never been a surplus of soybeans, that there was no bona fide need for such controls at this stage.

If growing conditions should be favorable, and if acreage increases in some areas should turn out to be as large as indicated, we conceivably might produce 275 or even 300 million bushels of soybeans in 1950. Then *we would be in trouble.* Production would greatly exceed domestic demand. If export markets should not expand, we would literally find soybeans running out of our ears.

And in that case, with a surplus of soybeans accumulated and on hand in the spring of 1951, there would be no alternative but to slap on acreage controls.

If the soybean industry has the wisdom and foresight with which it is credited, soybean plantings in '50 will be conservative, and intelligently planned. There will not be huge acreages thrown into production in hopes of getting rich quick. Should such acreage jumps come into the picture we will have no one to blame but ourselves when forcible means are used to control acreages and thus surpluses.

ASSOCIATION'S 30TH TO ILLINOIS

Now you can mark that big red circle on your calendar!

The event: American Soybean Association's 30th annual convention.

The place: Springfield, Ill.

The time: Aug. 29-30-31.

Keep the dates open. With your help we'll make the 30th the best ever. Turn to the Association page for more details.

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ACTIVITIES OF YOUR ASSOCIATION

'50 MEETING TO SPRINGFIELD, ILL.

Thirtieth annual convention of the American Soybean Association will be held in Springfield, Ill., Aug. 28-29-30, the board of directors has announced.

The board feels that the choice of Springfield is a particularly happy one this year. Springfield is central to all the big soybean producing areas of the Midwest and Midsouth.

The city, the state capital of Illinois, is large enough to provide good facilities for a convention, yet not so big that the convention will be overshadowed by other events. The Springfield Armory will house the general sessions and the exhibits, and will provide plenty of room and facilities for a large number of exhibits and all activities.

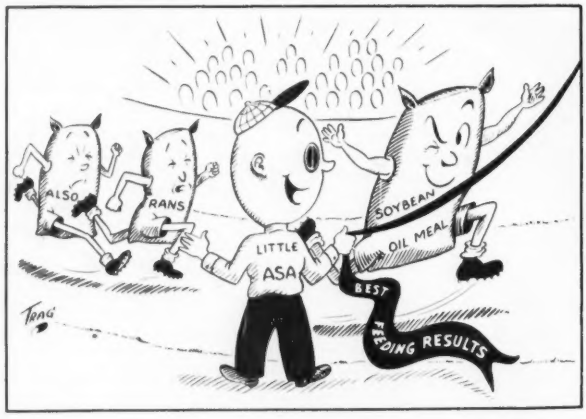
Housing accommodations will be provided by the Leland and Abraham Lincoln Hotels.

The historical associations of Springfield will appeal to many people. Springfield was where Abraham Lincoln lived for much of his adult life before going to Washington as president. And he is buried there. A tour will be arranged for those who wish to visit the Lincoln tomb and other historical spots in Springfield.

There will be a meeting with people in Springfield to complete further arrangements for the convention. Watch later issues of the Digest for details.

And plan to attend! Hold the dates Aug. 28-30 open for the 30th convention of the American Soybean Association.

Soybean Oil Meal Is Second To None



Scientific tests have proved that soybean oil meal is the best protein feed money can buy.

Check the label of all feeds you buy for soybean oil meal content.

Adv. prepared by American Soybean Association, Hudson, Iowa

YOUR FIRM NAME

NOTICE: This advertisement is the first of a series on soybean oil meal designed for publication in newspapers. Feed dealers, processors, elevators and others who would benefit from these advertisements are invited to write for free mats to American Soybean Association, Hudson, Iowa.

BRIEF FOR SOYBEAN OIL

A statement on the use of soybean oil in margarine, setting forth its strong points, also its weaknesses and where more work needs to be done, is being prepared by the research committee of the National Association of Margarine Manufacturers.

This is one result of a meeting in Chicago Mar. 17 attended by the executive board of the American Soybean Association, the National Cotton Council and the research committee of the Margarine Manufacturers Association.

These groups will meet again in May after the report has been completed. At that time they will plan a real campaign to sell soybean oil in margarine.

The men who attended the meeting were told that the so-called lack of flavor stability of soybean oil is not as serious as some would make us believe. If it were not for this reversion factor soybean oil would be the best margarine oil on the market, they were told.

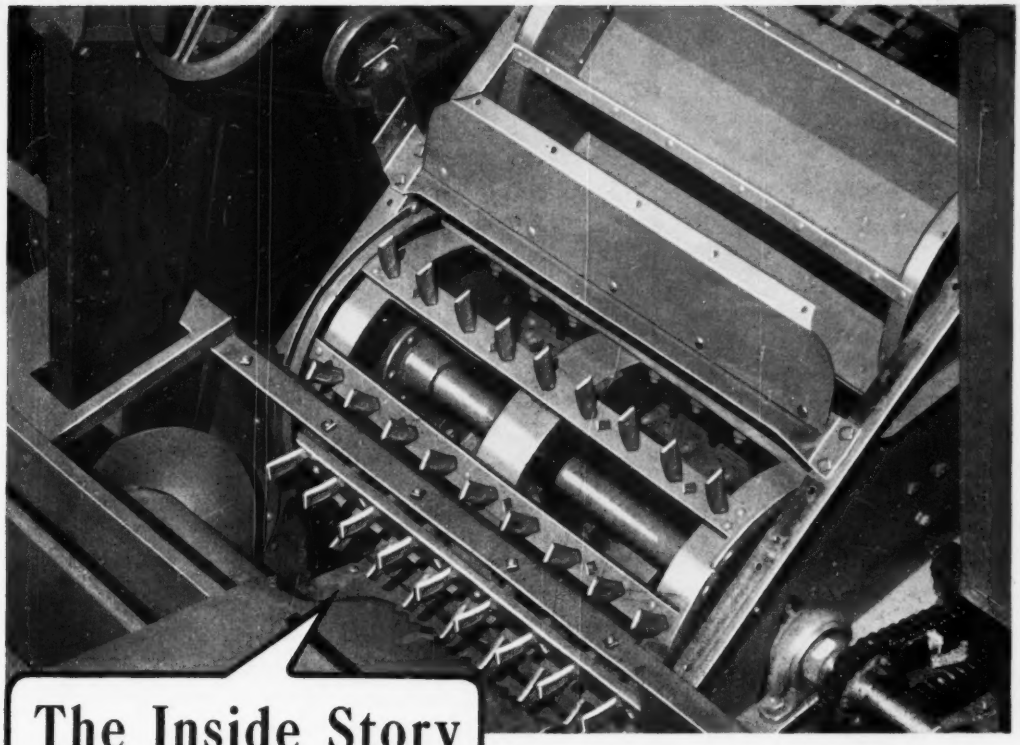
MORE YELLOW MARGARINE

President Truman signed the bill repealing all federal margarine taxes and license fees Mar. 16. Both houses of Congress passed the final version of the bill the week of Mar. 10. The bill becomes law July 1.

Thus comes to an end so far as the federal government is concerned, a struggle of many years standing by the American Soybean Association and other producer and consumer groups to remove laws that discriminate against soybeans and other farm products.

The American Soybean Association, since 1941, has consistently advocated repeal of all discriminatory laws on margarine made from oils produced in the U. S.

While the law as passed repeals taxes and license fees on margarine, restrictions are tightened to prevent



The Inside Story of Saving Soys

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● More than a hundred years of experience have given many things to the Case Model "A" six-foot combine. One is a spike-tooth cylinder with threshing width expertly proportioned to the width of cut. Result is a volume of material not too thick nor yet too thin, but of favorable thickness for effective threshing without harsh action on tender seeds.

This versatile cylinder has simple adjustments for positive control of speed and clearance to suit the condition and kind of crop—not only soybeans and common grains, but the finest of tough-hulled grasses and seeds as big and brittle as lima beans. The concave gives choice of one, two, or more rows of teeth to fit the character of crop.

In quality of construction, too, the Case "A" is worthy of its hundred-year heritage. By its ENDURANCE as well as its performance, it holds highest respect among growers with wide experience in combine harvesting. For the full story, see your Case dealer. J. I. Case Co., Racine, Wis.

CASE

the product being passed off as butter.

Public eating places serving margarine must post a notice to that effect or print such a notice in the menu. They must label each separate serving as margarine or serve it in triangles.

Following the president's signing of HR 2023, Geo. M. Strayer, secretary-treasurer of the American Soybean Association, hailed the act as one that will mean an expanding market for U. S. soybean oil.

Strayer pointed out, however, that the full benefit of federal repeal cannot be fully realized so long as some states retain their anti-margarine laws.

"In 15 states the sale of yellow margarine still is prohibited by law; and there are per-pound taxes on yellow or white margarine, or both, in 6 other states," he said. "Soybean producers will not have won a complete and final victory until all those discriminatory state laws are scrapped."

Reflecting the repeal, production of yellow margarine is climbing. In January production of yellow margarine was 30 percent of total margarine production compared with 14 percent in January a year ago.

Dairy spokesmen generally were forecasting doom of their industry following repeal of the margarine law. But the Minnesota Creameries Association and the Land-O'Lakes Creameries (also in Minnesota) adopted resolutions calling for a year round check-off of 1c per pound of butterfat.

This is "recognition by Minnesota dairy farmers that the dairy industry must shed its dependence upon the federal government and take steps to build markets which gradually will absorb all the products that dairy farmers are likely to produce," said the Dairy Record.

Winners of Gulf, Mobile & Ohio awards in the Illinois 10-Acre Soybean Growing Contest presented at the annual Illinois crop improvement banquet at Urbana Feb. 8. Left to right are A. F. Stephens of the GM&O; F. M. Oakes, Laura, Peoria County; L. Parke Kerbaugh, Stanford, McLean County; Dewey T. Beattie, Sparta, Randolph County; Hugh Morrison, president Illinois Crop Improvement Association, Princeton, Ill.; and J. C. Hackleman, University of Illinois extension agronomist.

WIN GM & O AWARDS

L. Parke Kerbaugh, Stanford, Mclean County, was first place winner of the Gulf Mobile & Ohio Railroad awards in the Illinois 10-Acre Soybean Production contest for 1949, A. F. Stephens, GM&O general agricultural agent, St. Louis, Mo., has announced.

Kerbaugh received the rotating trophy and a Parker "51" pen and pencil set. He ranked third in the Illinois state contest, but first among the entries in the 29 Illinois counties served by the GM&O.

Awards were based on yield, quality and cost of production. Kerbaugh had a total score of 86.17, with a yield of 42.14 bushels per acre. The field on which his beans were grown was limed and phosphated, plowed in Nov. 1948, disked twice, harrowed once and planted in 21-inch rows at the rate of 1 bushel per acre. Planting date was May 16. He used Hawkeye variety.

F. M. Oakes, Laura, Peoria County, placed second with a score of 80.59 and a yield of 38.4 bushels per acre. He planted Hawkeye in 36-inch rows May 25.

Dewey T. Beattie, Sparta, Randolph County, ranked third with a score of 76.7 and a yield of 28.07 bushels per acre. Beattie, who is in southern Illinois, used Wabash, and planted May 20 in 26-inch rows.

GROWERS

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(Model F-3, 122-inch wheelbase Express illustrated)

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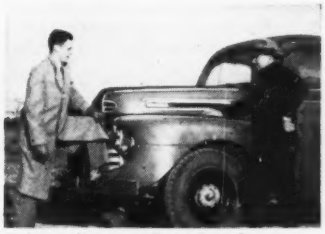
says Louis P. Jensen of Troy, New York

"She keeps the budget in our family and knows just how much we're saving on gas, oil and upkeep since we changed to Ford. I agree—Ford Trucks certainly *do more per dollar!*"

"I picked Ford for power, but the money I'm saving has really convinced me it's the best all-around buy." (Loadomatic ignition saves gas; aluminum alloy pistons save oil; removable brake drums and engine-top setting save time and upkeep costs.)

"Never lets me down on any job! I use my Ford for every sort of work on my farm, in all kinds of weather." (To fit *your* job better—to save you money—a choice of over 175 Ford Truck models. From the 95-h.p. "Six" Pickup to the 145-h.p. "V-8" BIG JOB!)

"It's mighty good-looking . . . rides like a passenger car. The 'Million-Dollar' cab was good news to me, too!" (More good news for farmers is Ford's powerful, yet thrifty Six—the new 110-h.p. 254 cu. in. engine. It's engineered for heavy-duty farm use!)



"I knew they were Bonus-Built for extra strength, but I still can't get over how much less Ford Trucks cost to run!" (Find out yourself why Ford Trucks do more per dollar. Change to Ford like Louis Jensen did—see your Ford dealer this week!)

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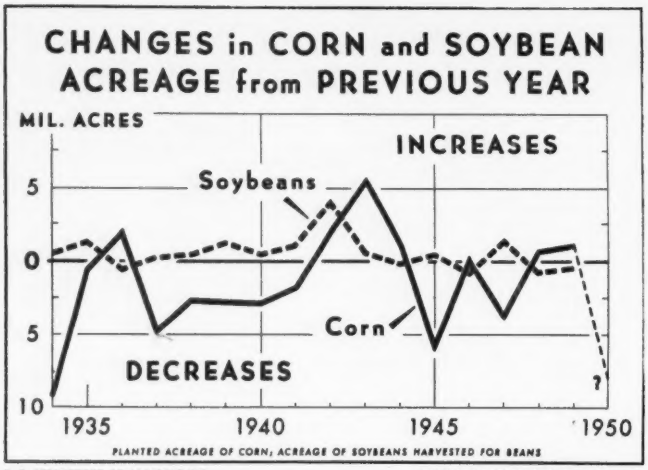

Big question this year is how big the national soybean acreage will be. Changes in planted acreage in corn are nearly always accompanied by opposite changes in the acreage of soybeans. This was not true in 1942 and 1943, however, when soybean and corn acres both increased at the expense of hay and pasture. With corn and cotton acreage allotments in effect in 1950, soybean acreage will probably increase to replace both crops.

WANT A PROFIT IN 1950? CUT COSTS

By PAUL C. HUGHES

You can expect lower prices for your 1950 soybean crop. If you are to continue to grow soybeans at a profit the best way to do it is by cutting your per-bushel cost of growing them.

The support price has not yet been announced for 1950-crop soybeans but forecasters are predicting that it will be as low as $1.50. If we should turn out the biggest crop in history—and farmers' March 1 planting intentions show this is likely—the going price could be as low as $1.50.

The key to a profit in 1950 may be to reduce the per-bushel cost of production. That can be done by:

(1) producing more soybeans per acre or

(2) by decreasing the total cost of production.

George M. Pond of the University of Minnesota in a study reported elsewhere in this issue found that it cost on an average of $25 to produce an acre of soybeans in southern Minnesota last year. As the average yield was 17.4 bushels per acre, the cost per bushel was $1.42—or only 8c under the possible 1950 price.

But if Minnesotans could have increased the yield by just 1 bushel per acre and lowered the cost by $1 per acre, they would have lowered the per-bushel cost 12c, or to $1.30.

In states where the average yield is higher the per-bushel cost is lower. If an Arkansas farmer can grow an acre of beans for $25, the cost of each bushel will be $1.25. The Missouri farmer can raise a bushel for $1.19; and the Ohio farmer can shave that cost another 15c, to $1.04.

But the Illinois farmer, due to his high average yield, can grow beans most cheaply of all, at 96c per bushel.

Remember this is just an average. If you can grow 40 bushels of beans to an acre without raising your costs, your per-bushel cost will be 62½c! And many farmers' costs are lower than $25 an acre. There are few farmers who can't cut costs or increase yields.

It is clear that the easiest way to cut your cost of producing a bushel of soybeans is to up your yield per acre.

Here are several points you can check yourself on:

1—Are you using the best varieties? In Iowa tests Hawkeyes outyield Richlands by 4 bushels—and Richlands were averaging 31.6 bushels per acre in those tests! Maybe you can find a still better variety than the one you have been using. Better varieties are being developed every year. But be sure the variety you choose is adapted to *your locality*.

2—Are you inoculating your seed? This is "old shoe" to most farmers who have been growing beans for a long time, and it is easy to forget the importance of inoculation. Some farmers no longer inoculate, but this is false economy. Even on land that has been in soybeans year after year inoculation often increases yields 5 to 6 bushels per acre. Even if the increase is only 1 bushel per acre it will pay.

3—Avoid replanting and imperfect stands as much as you can. Test your seed for germination. Seeds

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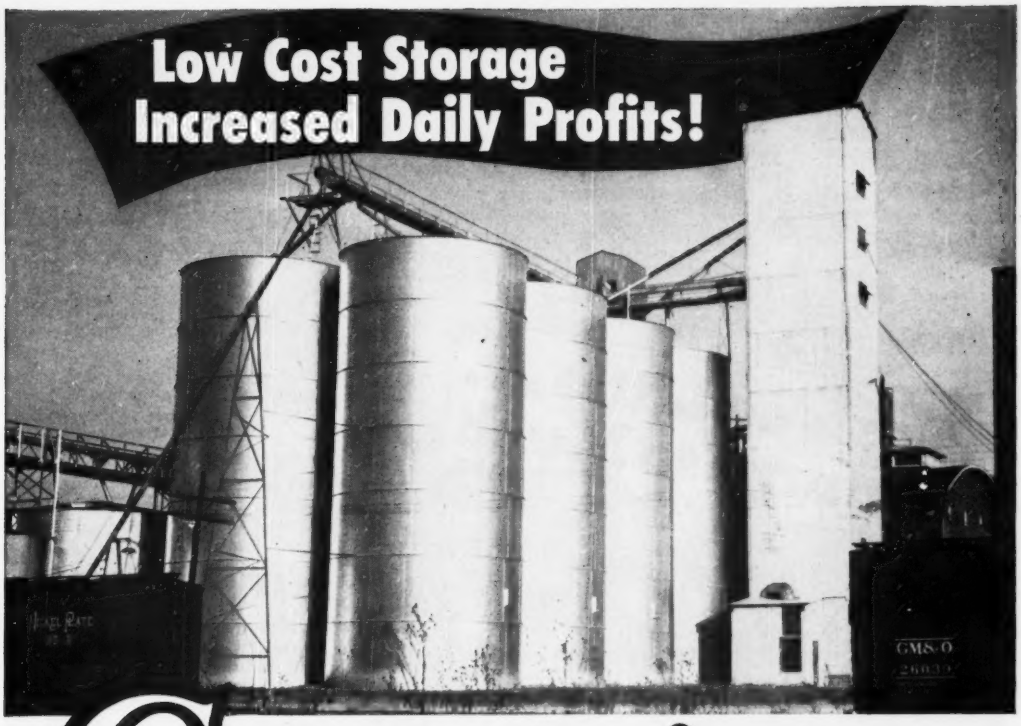

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Detailed, easy-to-understand blue prints for erection are furnished so that tanks may be put up with any kind of labor—or we will provide supervisor for your own men—or a complete Columbian erection crew. Foundation specifications and blue prints are furnished to enable your local concrete contractor to build foundation.

FREE Engineering Service— All preliminary engineering service for designing tanks to meet your particular need and arrangement is provided free.

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After 30 years of manufacturing Columbiar storage tanks, they continue to prove superior because of exclusive and important details of design. After 30 years of service users are adding rings to increase storage—and continue to specify Columbian irrespective of new-comers in the field. None of these tanks have ever worn out—not one has ever been demolished by tornado or cyclone.

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of low germination will never give a perfect stand. Don't plant too early. The old rule of not planting corn until you can sit on the ground without getting cold goes for soybeans too. If you have an early dry period wait until it rains before planting. Many stands are damaged by planting in soil that is just wet enough to sprout the seed but not to bring the beans through the topsoil.

4—Don't over plant. Soybean seed costs money. From 45 to 60 pounds per acre is plenty. Exact amount depends on the width of row and size of seed.

5—On well drained or tiled soil use continuous rows. Start at one edge of the field and plant around and around until you reach the middle. This speeds up cultivation by eliminating turning at the end of the field. It also makes for easier combining.

6—Use rows of proper widths. The University of Illinois recommends 28-inch rows. If your present equipment will not work on rows that narrow, plant as close to that width as possible.

7—Keep your soybeans free of weeds. Cultivate shallow and often, using a rotary hoe or any size of shovel. But don't ridge, as ridges give trouble at combining time. Don't let the weeds get a head start. Use a drag harrow crosswise of the rows as soon as the soybeans are well under way. It may look like you are killing your beans, but you'll be actually killing the weeds. Keep your harrow clean.

8—Keep down disease. Rotate your soybeans from one field to another. And do not cultivate, especially with a rotary hoe or drag harrow, when the plants are wet or damp.

Your chances of making a profit on your soybeans in 1950 are better if you follow these simple rules.

PLANT RIGHT VARIETY

More soybean crop failures are caused by planting unadapted varieties than from all other causes combined. Geo. M. Strayer, secretary of the American Soybean Association, warns Southern growers who are planting their first soybean crop in 1950.

Soybean varieties unlike some other crops cannot be successfully moved from north to south according to Strayer. An adapted variety, he says, is one that will make maximum use of the growing season and turn out the highest yield possible while at the same time maturing before frost or weather hazards.

The best northern Cornbelt varieties will not produce a full crop when planted too far south. Good Cornbelt varieties like Lincoln and Hawkeye may yield up to 50 bushels per acre in the Cornbelt but they are hard pressed to yield 10 bushels in the South in an average year.

Adapted varieties for the South are (starting with the Gulf Coast and coming north): Acadian and Pelical, C.N.S., Volstate and Roanoke, Ogden and S-100. Other adapted varieties are Arksoy, Ralsoy Dortchsoy and Hale-Ogden selections. A good rule of thumb is to change varieties with every degree change in latitude.

Cornbelt varieties that should NOT be planted in the South are Earlyana, Richland, Hawkeye, Lincoln, Monroe, Adams, Illini, Chief, Wabash, Macoupin, Boone, Hongkong, Dunfield and Gibson.

In a recent survey of leading soybean growers from an important soybean state, 91% said they always inoculate soybeans before planting. Among those who expressed a preference, NITRAGIN led all other brands of inoculants by almost 3 to 1. NITRAGIN has been the preferred inoculant for years . . . it boosts yields and saves soil fertility. The healthy root systems of legumes inoculated with NITRAGIN help the plants take free nitrogen from the air to enrich the land . . . to give you higher yields of richer hay and pastures. You can't afford to gamble with seed, land and time. It takes only a few minutes . . . costs only a few cents an acre to help assure success with soybeans. Protect your investment . . . always inoculate with NITRAGIN. Ask your seedsman for the "inoculant in the yellow can."

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The message above is taken from an actual telegram sent recently by a St. Regis representative who had been contacting dealers, mixers, ginners and farmers.

It indicates a definite and unmistakable trend — the trend toward packaging in Multiwall Paper Bags — economy in both container and labor costs. Of equal importance is the *clean package* St. Regis Multiwalls provide. Meal can't sift through the tough kraft paper to soil and stain clothes, storerooms, cars, trucks or shelves. This means a clean, attractive, easy-to-handle package . . . one that delivers full weight, defies moisture, resists rodent and insect contamination, brings meal to the user clean and dry.

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YOU BUY PROTECTION WHEN YOU BUY MULTIWALLS

U. S. '50 ACREAGE UP 2 MILLIONS

A total of 13.5 million acres of soybeans will be *planted alone for all purposes* in 1950 if growers carry out their intentions as expressed on Mar. 2, according to the U. S. Department of Agriculture crop reporting board. This would be an increase of 18 percent over the 11.4 million acres planted last year and 12 percent above the 1939-48 average. The acreage indicated this year is the third highest of record, exceeded only by the war years of 1942 and 1943.

If about the same proportion of the total acreage of soybeans is harvested for beans, as in the last 2 years, the acreage for beans would be about 11.7 million acres. If this acreage is realized and 1945-49 average yields are attained by states, the 1950 production would total about 228 million bushels. A crop of this size would be about 5 million bushels above the previous record in 1948 and 6 million bushels above the 1949 production of 222 million bushels.

Much of the increase in the prospective planted acres this year is expected to come from land diverted from crops under acreage allotments, especially corn and cotton. The important North Central area shows an increase of 17 percent over a year ago, with all producing states in the area expecting substantial gains in acreage.

The sharpest increase is in Minnesota, where soybean acreage has expanded rapidly in recent years. More than a million acres are expected in that state this year, compared to an average of less than one-half million acres. Sharp percentage increases over last year are also noted in North Dakota and South Dakota, although the acreage in those states, which are on the fringe of the main soybean area, are still relatively unimportant.

Illinois, the heaviest producing state, indicates an increase of 13 percent over last year. This is slightly less than the 15 percent increase in Missouri, but above the 12 percent increase in Ohio and the 10 percent in Indiana. The prospective acreage in Iowa is 20 percent above last year although still 9 percent less than the 10-year average.

The South Central area shows a substantial increase over a year ago. This is largely the result of the 80 percent increase in Arkansas where a considerable acreage is expected to be diverted from cotton and rice. Mississippi also reports a rather sharp increase—35 percent above last year, but only 15 percent above the 10-year average. Smaller increases are expected in Tennessee and Alabama while Kentucky and Oklahoma are the only producing states in the area which indicate no change from last year.

The North Atlantic states, where only a small acreage of soybeans is grown, show an increase of 10 percent over last year while the South Atlantic states indicate an increase of only 8 percent. North Carolina, the largest producing state in the area, reports a 3 percent larger acreage than in 1949. The increase in that state is in the areas where acreages of cotton and peanuts are expected to be reduced.

MARCH 1 PLANTING INTENTIONS
(Total acreage for all purposes)

State	1949	1950	% Increase
	Thousands of acres		
N. Y.	6	6	100
N. J.	26	29	112
Pa.	42	46	110
Ohio	902	1010	112
Ind.	1576	1734	110
Ill.	3327	3760	113
Mich.	72	86	120
Wis.	48	58	120
Minn.	734	1138	155
Iowa	1309	1571	120
Mo.	897	1032	115
N. Dak.	14	21	150
S. Dak.	31	46	150
Neb.	24	30	125
Kan.	250	300	120
Del.	63	66	105
Md.	65	72	110
Va.	147	163	111
W. Va.	16	16	100
N. C.	380	391	103
S. C.	57	70	123
Ga.	77	89	115
Ky.	225	225	100
Tenn.	217	230	106
Ala.	174	195	112
Miss.	274	370	135
Ark.	331	596	180
La.	101	121	120
Okla.	19	19	100
Tex	5	10	200
U. S.	11,409	13,500	118.3

—s b d—

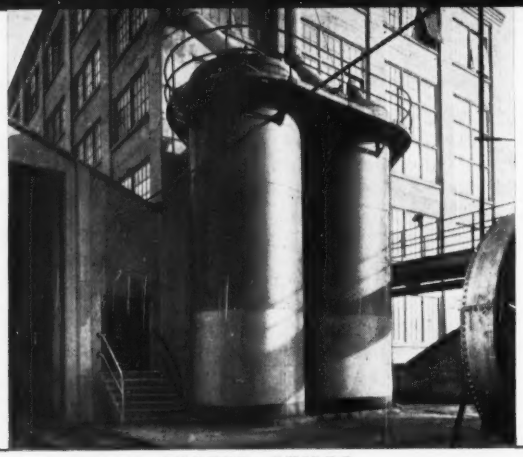
CHANGE TO SOLVENT

The Buckeye Cotton Oil Co. announces that it is starting immediately to convert its Binghampton soybean crushing units at Memphis, Tenn. from the present hydraulic presses and expellers to a chemical solvent process.

Conversion to the new process will give the Buckeye organization over 200,000 tons of solvent crushing capacity at Memphis, two-thirds of which can be used on either cottonseed or soybeans, according to officials.

Construction will start immediately, and will be handled by Company engineers and construction personnel, it was announced.

EVERDUR ACIDULATORS



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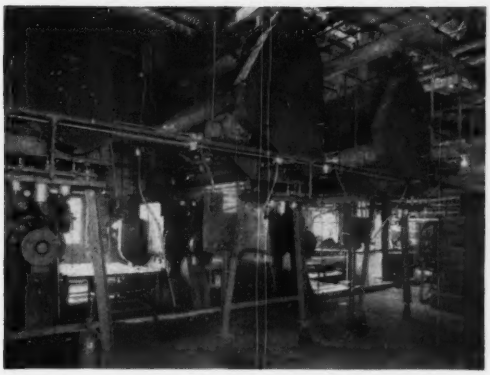

Anderson Pre-Expellers and the Flaking Rolls used in the Exsolex Installation at Delta Products Company

EXSOLEX

produces a RECORD-BREAKING 0.3% oil meal on cottonseed

● For several months we have told you about Anderson's remarkable new Exsolex Process*. Before bringing you actual facts, we purposely waited until a thorough trial had been made of the Exsolex Process. Here are the amazing results: In the first few weeks' run at a new Anderson Exsolex installation in operation at the Delta Products Company plant in Wilson, Arkansas, the residual oil in the meal averaged 0.3% as compared with 2.6% for the previous season with direct solvent extraction.

The Exsolex system is much more than an ordinary pre-pressing. In this process, a highly extractable material is made for the solvent process with the installation of special Pre-Expellers, plus the necessary know-how to properly prepare the cake for the solvent process. Only after years of research and experimentation has it been possible to obtain such phenomenal oil production.

The resultant oil at Wilson, Arkansas, is of the highest quality . . . light in color with superb bleaching qualities. The cottonseed meal is practically gossypol-free. Solvent losses were reduced more than half . . . steam and water consumption by one-third . . . no additional labor was required other than that used for the regular solvent operation.

The Anderson Exsolex Process can handle many oil bearing materials and switch from one to another. Investigate Exsolex . . . it's the answer to the oil miller's problem of making more profits.

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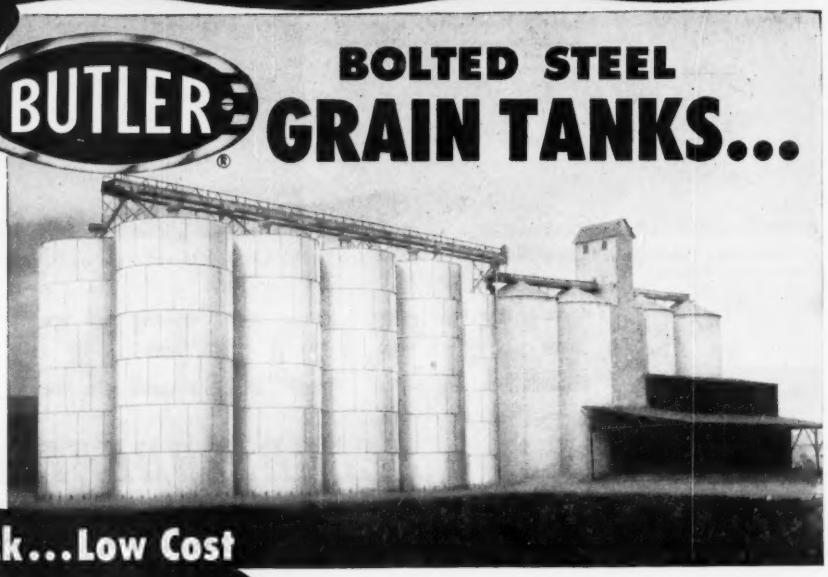

This ten-unit installation of Butler Bolted Steel Grain Tanks added 141,000 bushels capacity to existing facilities of a soybean company in Hayti, Mo.

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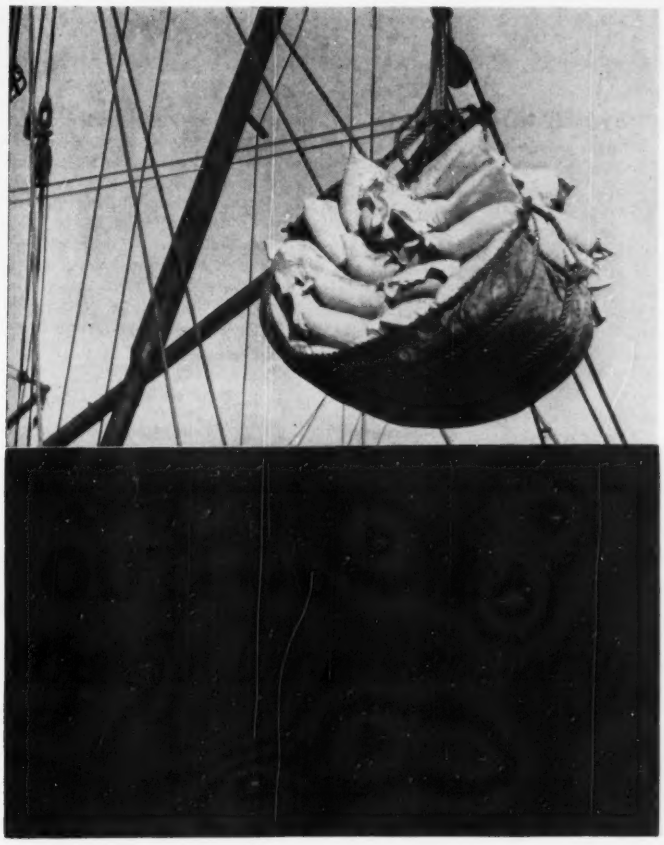


NOW THAT the United States has achieved first place as an exporter as well as a producer of soybeans the question naturally arises, What is the outlook for the American soybean industry during the next several years?

Will the industry maintain the pre-eminent world position to which it rose through efficiency of production and war-related circumstances during the 40's, or will it be faced with the need for adjustment to contracting world demand and increasing foreign competition?

Any answer bearing on the soybean outlook of course must fit into framework of the international fats and oils trade and production picture. The United States' shift from a net importer of fats and oils to a major net exporter has been one of the most significant postwar developments in international agricultural trade. Back in the 1937-41 period, total United States fats and oils imports averaged more than 2 billion pounds annually on an oil-equivalent basis, while exports (including the oil equivalent of exported seeds) averaged just over half a billion pounds. From the war's end through 1948 imports continued to exceed exports, but to a lesser and lesser degree, and in 1949 total fats and oils exports rose to 2¼ billion pounds compared with imports of 1.1 billion—a net export balance of well over 1 billion pounds.

Exports of soybeans and oil (as beans) in 1949 reached a record volume of about 65 million bushels, or the equivalent of more than one-third of the domestic commercial crop. European countries in 1949 took 62 percent of the beans and 90 percent of the oil. United States exports of soybeans and oil in terms of beans in 1948 were 16 million bushels. In 1947 they were 15 million. The prewar average was only 5.5 million.

The rise in 1949 exports was unprecedented as a glance at the table below will show. Can it be maintained?

There were good reasons for the 1949 upsurge in foreign shipments. The rise in exports followed the International Emergency Food Committee's cessation of recommending fats and oils allocations, and dollar prices during the year compared favorably with nondollar prices in other parts of the world. Also, many countries were anxious to build up supplies after years of fats and oils scarcity. Stated briefly, the high level of fats and oils exports was attained because the United States had the supplies and European and other countries needed the imports.

That the United States had the soybeans and the soybean oil to meet the record foreign demand was the result of this country's enormous production increase during the past decade—an increase that has placed the United States ahead of China (exclusive of Manchuria) as the world's largest soybean producer. In recent years, the trend of United States soybean production has been upward, while Chinese and Manchurian output has dropped.

The American soybean industry naturally has benefited from the briskness of our international trade in fats and oils last year, and is likely to continue to do so for some time to come. From the export standpoint, the outlook for 1950 and 1951 is good. United States fats and oils net exports may not be as large this year and next as in 1949, but they still should be high, especially since per capita consumption throughout much of the world is still less than prewar. World fats and oils production has recovered to prewar level but there are more potential consumers than before the war as result of a 10 percent rise in world population.

Western Europe, where per capita fats and oils supplies now average only about 75 percent of prewar, will continue to have a definite need for soft oils to blend with the harder palm oils in the manufacture of mar-

U. S. EXPORTS OF SOYBEANS AND OIL
(1949 with comparisons)

	Unit	1937-39	1947	1948	1949
Soybeans	1,000 bu.	4,793	2,505	6,497	23,361
Soybean oil:					
refined	1,000 lbs.	6,467*	38,883	41,266	211,519
unrefined	1,000 lbs.	6,467*	68,395	41,769	147,962
Total beans and oil in terms of beans	1,000 bu.	5,500	14,684	15,998	64,613

*1935-39—Refined and unrefined not separately classified.

garine. The Western European countries can be expected to look to the United States as a source of soybeans to make up for the loss of imports from Manchuria. Prices of United States fats and oils supplies, particularly soybeans, edible vegetable oils, lard and inedible tallow and greases, have dropped considerably the past year and this should stimulate exports.

Even though a drop in total exports of United States fats and oils is to be expected in 1950 and 1951, foreign shipments of soybeans, lard and tallow should hold up best.

So much for the short-range outlook. But what about prospects 2 years hence?

Any long-range thinking about the future of soybean and other fats and oils exports must take into consideration the fact that in 1949 nearly half of all United States shipments of fats and oils abroad were financed by the Economic Cooperation Administration and other dollar-grant programs. Such financing won't continue indefinitely, and the amount of dollars foreign countries will have to buy our fats and oils when it ends is anybody's guess.

Narrowing our conjecture to soybeans alone, there's no way of knowing at this time how much competition United States producers can expect from other countries. Take Manchuria, for instance. During the past 4 years, Manchurian soybean production has sagged steadily, dropping to less than 70 million bushels last year compared with a prewar (1935-39) annual average of about 150 million. A return to anything like prewar soybean production in that Far Eastern area could be expected to cut deeply into the world demand for United States beans and oil.

Furthermore, it is impossible to measure the impact the dollar shortage in importing countries will have on the demand for our soybeans.

It is true that the quality of American soybeans and soybean oil is becoming well known in foreign markets. If the export quality and reasonable prices can be maintained for American beans and oil, the probable export business possible during the next several years should be substantially above the prewar level.

However, to assure itself of substantial exports, the United States soybean industry should keep informed of trade and production developments abroad, and aggressively take advantage of sales opportunities in other countries.

Business Outlook for Soyb

By HERMAN M. HAAG

Director Research Department, M.F.A.

From talk before Tri-State Processor Conference at Columbia, Mo.

PRICES OF FARM products have fallen substantially since early 1948. The index of prices received for all farm products was 306 percent of the 1910-14 base on Jan. 15, 1948, but had dropped to 265 by Jan. 15, 1949, a decline of 41 points. The decline continued through 1949 and the index was down to 235 on Jan. 15, 1950, which was a further drop of 30 points.

The index of prices received by farmers for all crops was 288 percent of 1910-14 base on Jan. 15, 1948. This index dropped 49 points during 1948 and was down to 239 on Jan. 15, 1949. A further decline of 20 points was experienced during the year 1949 and the index was 219 on Jan. 15, 1950.

The index of prices received by farmers for livestock was 322 percent of the 1910-14 base on Jan. 15, 1948 and the decline was 33 points in 1948, bringing it down to 289 Jan. 15, 1949. A further drop of 40 points occurred during the year 1949, and the index was 249 on Jan. 15, 1950. Although livestock prices have dropped a few points more than crop prices they are still at a higher level than crop prices.

While prices of farm products have declined 71 points, or nearly 25 percent, the index of prices paid by farmers, including interest and taxes, has declined very little. The index was 261 (1910-14=100) on Jan. 15, 1948 and dropped only 5 points to 256 by Jan. 15, 1949. A further decline of 7 points occurred in 1949, and the index was 249 on Jan. 15, 1950.

Parity Ratio Unfavorable

Thus, the ratio of prices received by farmers for all farm commodities to the prices paid by farmers, including interest and taxes, otherwise known as the parity ratio, was 117, a favorable relationship, on Jan. 15, 1948 and only 104, or slightly above normal, by Jan. 15, 1949. A further drop of 10 points during 1949 brought the parity ratio to 94 on Jan. 15, 1950. Dec. 1949 was the first month that the ratio had been below 100 since Nov. 1941.

This decline in farm purchasing power is similar to that which has occurred in every past period of deflation. Prices of farm commodities always drop much faster than the prices of commodities purchased by the farmer, during periods of declining price levels.

Some commodities occupy positions more favorable than others as measured by their parity ratios. The following table shows the parity ratios of representative commodities.

Commodity	Ratio
Ratio of 60 - 79	
Eggs	62
Apples	64
Chickens	74
Oats	77
Ratio of 80 - 89	
Hogs	81
Potatoes	81
Soybeans	85
Butterfat	87
Milk	89
Cotton	89
Ratio of 90 - 99	
Wheat	90
Ratio of 100 & Over	
Beef Cattle	115
Lambs	116
Veal Calves	123

Money Value Changes

Prices have always risen during war periods and have always declined in the postwar period. These fluctuations in the price level are caused by changes in the value of money. Money is cheap during war periods and shortly thereafter. Money increases in value during the postwar period when people begin to think that they will be able to buy the things they need or want at lower prices if they wait a little longer. At the same time, large supplies of goods are being produced. These two factors always cause a world-wide decline in prices following inflationary war periods.

The postwar decline in prices ordinarily lasts from 15 to 30 years in those countries which maintain a so-called sound monetary policy by avoiding devaluation during that period. Very few countries devalued their currencies within 5 years after the close of World War I. The depressing effects of falling prices have brought earlier action after World War II because many countries have already devalued their money as a means of raising their internal price level above the world price level in terms of gold.

What of 1950?

Newspapers and magazines are generally optimistic and have pointed out this year, as they did a year ago, why business will be better this year than last. They attribute this impending prosperity to higher incomes and government spending.

an Processors

They do not give proper consideration to the trend of prices throughout the world. It is this writer's opinion that world prices in terms of gold will continue to decline, and as a result, prices in the United States will move downward until devaluation becomes necessary.

The wholesale price level is expected to decline at least 10 percent during 1950, and prices of farm products will fall about 15 percent, which will bring the index of prices received by farmers down to about 200 (1910-14=100). Prices of farm products are expected to decline to about 180 before the situation will become serious enough to require a change in monetary policy.

If farm prices drop the expected 35 points in 1950, or from 235 to 200, prices paid by farmers, including interest and taxes, will not drop more than 14 or 15 points, from 249 to about 235. This will reduce the parity ratio still further and put farmers at a still greater disadvantage. United States cash farm income was estimated at 32 billion dollars for 1949, and production expenses were estimated at about 18 billions, leaving a net farm income of about 14 billions. Cash farm income for 1950 is expected to drop 3 to 4 billions, to about 28 or 29 billion dollars, while production expenses are forecasted at from 17 to 18 billions leaving a net farm income for 1950 of about 11 billions. This compares with the 1943 net farm income of 12 billion dollars.

Processing "Squeeze"

The trend in the general price level is of utmost concern to soybean processors because their products, oil and soybean oil meal, both fluctuate sharply with changes in monetary conditions. Both would be classified as raw materials and behave as such as far as prices are concerned. Raw material prices always decline more than prices of goods ready for the ultimate consumer when the price level falls. On the other hand, wages and prices of many other goods and services entering into cost of processing of soybeans decline slowly as prices fall. As a result, prices of soybeans normally fluctuate very sharply as prices change, but price supports have prevented part of this normal price decline. Consequently, soybean processors are caught between declining product prices and supported soybean prices, while costs of production remain high. This squeeze will become worse as the price level continues to fall.

Production of Oils

As far as fats and oils are concerned, production during the present year will continue at record levels, and probably will be even larger in the 1950-51 year. Earlier in the production year, the output for the year beginning Oct. 1, 1949 was expected to be 12 billion pounds, or about 250 million pounds greater than in the production year of 1948-49. An increase of nearly 400 million pounds was expected from animal fats and 100 million pounds from the inedible industrial fats and oils, which would be offset by a reduction of 250 million pounds in edible vegetable oil production. For the two important edible vegetable oils, cottonseed oil production was expected to be about 9 percent larger this year than last, and soybean oil production moderately lower. There is some question as to the actual production of soybeans in 1949 which might bring a revision upward in the soybean oil estimate.

Export movements of fats, oils, and oilseed have been large in recent months but imports also have increased. Exports have included large quantities of lard, soybeans and oil, and inedible fats and oils. Imports of fats and oil products have been largely copra, coconut oil, castor beans, and palm oil.

Because of the limitations on acreage of corn and cotton, the acreage planted to soybeans in 1950 probably will be at least 10 percent greater than in 1949. The increase in soybean production probably will be sufficient to offset the decline of cottonseed resulting from acreage control. This accounts for the expectation that supplies of edible vegetable fats and oils will be large again in 1950-51.

The domestic supply of fats and oils will continue at peak levels during the current year and prevent any marked increase in prices of fats and oils and oilseeds. On the contrary, declining prices may be expected if the general price level continues to move downward.

Soybeans Favored

Although prices of all fats and oils decline, prices of soybeans may decline relatively less because of the strong export demand for soybeans for crushing. Manchurian exports of soybeans, which formerly supplied European mills, have been relatively small since the war.

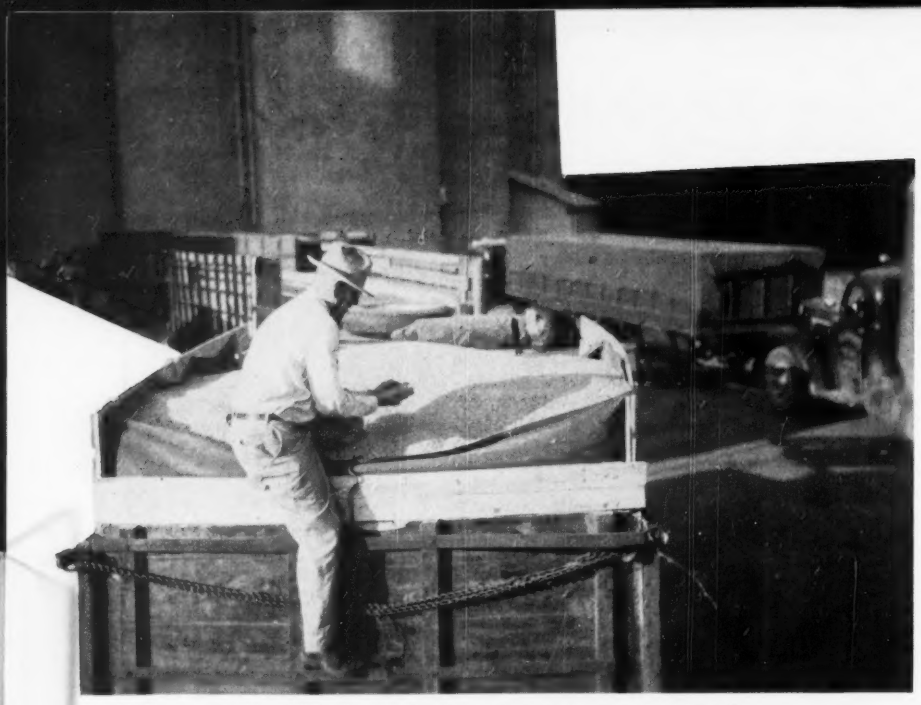
HERMAN M. HAAG

For Jan. 1950, the average price of crude soybean oil at Midwest mills was 10.8 cents compared to 14.3 cents a year earlier, and 26.6 cents 2 years ago. Although prices have fallen nearly 60 percent during the past 2 years, it should be remembered that the average price during the prewar 1937-41 period was 6.4 cents. Although this level of oil prices is not expected in the current or the 1950-51 production year, prices of crude soybean oil are expected to be below the 10 cent level in the fall of 1950, unless effective price supports at a higher level are in operation at that time. Stable to slightly lower prices of soybeans can be expected during the next 6 months.

Protein Prices

Vegetable proteins also will be in large supply during the current feed year and probably also in the 1950-51 feeding year. Soybean meal prices are expected to decline moderately as spring pastures become available and again as the new crop is harvested. Wholesale prices of soybean meal are expected to be near the $50 level in the Midwest feed markets in late 1950.

With $50 meal and 10 cent oil, wholesale prices of soybeans are not likely to be more than $1.85 next fall, which would be about 40 cents below prices in early March and 20 to 25 cents less than prices during the harvest season of 1949, unless prices are effectively supported at a higher level. A support level higher than $1.85 at Midwest wholesale markets next fall is almost certain to put a squeeze on soybean processors.



A. J. Renner, Scott County Milling Co., Sikeston, Mo., examines soybeans coming into his plant. He has received as many as 80,000 bushels in 36 hours.

Soybeans in Southeast Missouri

By J. R. PAULLING

Deering Farms, Inc., Deering, Mo.

ONE OF THE INTERESTING traits of human nature is that just about every person seems to think that his locality is different. Now the one I represent really is. Southeast Missouri has many such distinctive characteristics—peculiarities—some folks might call them, but characteristics nevertheless so significantly related to production of a crop like soybeans, that I want to sketch this country for you.

In outline map form Missouri roughly resembles the United States. Continuing the parallel, southeast Missouri holds the position and shape of Florida, even to the peninsular form. That's the origin of the term "Bootheel" section, sometimes applied to this part of the state. The area lies in the immediate Mississippi bottoms, is about 2 million acres in size, and embraces four counties in their entirety and part of five more. The soils naturally are of alluvial origin.

For a more specific description of these soils, Dean Miller gave us an excellent general statement. We fondly recall that he served many years as chairman of the soils department of this University. He said he supposed southeast Missouri soils vary as much as those covering the rest of Missouri. We do have lands ranging from the lightest to the heaviest in texture, from the whitest to the darkest in color, and from the poorest to the best in productivity. The total or average productivity of the area is exceedingly high. This fact was most startlingly called to our attention first by the late B. M. King of the crops department, a man who made noteworthy contributions to soybean production in Missouri. He pointed out that though southeast Missouri embraced only 5 to 6 percent of the farm land in Missouri, it accounts for some 20 to 22 percent of the state's entire crop production as measured in market value.

Here in the Delta we find the dust bowl of Missouri—some 300,000 acres of sandy land that blows unless covered. Water erosion exists but is not the widespread serious problem of rolling sections. Drainage—better drainage and ever better drainage—is and for time to come, probably will be a pressing need.

The climate is most briefly described as a combination of long growing seasons, mild winters and high rainfall. The average killing frost dates are Apr. 5 and Oct. 21. The soil is seldom frozen in winter and never for longer than a few days. The rainfall averages 45 to 55 inches while elsewhere in the state the range is from 45 inches downward to 30 inches.

So much for the significant physical characteristics—now for the economic and social. There are somewhere around 18,000 farms in the area, depending upon your definition of a farm. Tenancy is exceptionally high—even 92 percent of the farms in some counties being operated by someone other than the owner, according to the latest figures I have seen. Tenants move frequently, the average tenure being about 3 years. Absentee landlordism is common, with the result that contact is not close between the owner and the operator of the land. And yet a rigid system exists for such function as collecting crop share rents, and crop share rental arrangements prevail almost to the exclusion of any other.

The entire local economy is more precisely geared to a fast moving, quick turnover sort of farm operation, than to the more conservative type. This applies equally to the

● *From Mr. Paulling's talk before the soybean processor meeting at Columbia, Mo.*

man on the farm (be he day laborer, sharecropper, tenant or the rare owner-operator), the land owner, whether a resident of a nearby town or far removed; and the banker or other source of the ever necessary capital. They all want, they all understand more fully than any other, a system of planting in the spring and harvesting—and "paying up"—in the fall.

Of special application to the farmers themselves, by which I mean the fellows who "make" the crop, is the fact that they not only like to grow cash crops, they have more "know how" of this system of farming.

To all this let us add that these people are not easily frightened by the term "speculation." They, all of them, are eager to seize chances, if the enterprise in question has promise of profit and promise of a quick turn-over. This characteristic expresses itself in their willingness to invest with breath-taking suddenness land, labor, machinery, processing facilities and such other requirements as money will buy.

Cotton clearly is the soybean's chief competitor in southeast Missouri. And yet these crops are hardly antagonistic rivals. There are land, marketing facilities and a "mindedness" of the people for both. The two crops actually complement each other. Admittedly there is a disposition to put cotton first for the simple reason it can and usually does return more money. For example a bale-to-the-acre cotton crop compared with a 25-bushel bean crop will gross $125 per acre at 25 cents for cotton while the beans bring in say $50 to $55 at prices common in our section this past year. The renting farmer pays one-fourth the cotton for use of the land and one-third the soybeans. Other costs like those for harvesting and ginning confuse the picture somewhat, yet this example does show there may be a substantial difference in total income.

Another significant difference rests with the labor requirements of the two crops. Cotton demands some 115 hours man-labor per acre compared with slightly less than 10 for soybeans, according to our agricultural economics department. This fact can change net income figures radically. Chiefly as a result of the labor differences, the reasoning usually followed is to plant the limit of cotton with soybeans coming next in consideration, whether that limit on cotton is imposed by government program, a restriction of the labor supply, or whatnot.

The overall compatability of the soybean crop with southeast Missouri conditions is well attested by the several facts that that area produces over 50 percent of our state's crop, supporting a number of large mills—at least five—along with unnumbered elevators and other marketing facilities.

Varieties Important

The distinctly agronomic considerations constitute a broad field for thought. Variety is tremendously important. As recently as 10 or 12 years ago, to quote Mr. King again, there was no good variety of soybeans for southeast Missouri. Farmers grew hay types such as Laredo and Virginia for seed which they sold in the South. Of the grain types, they had only the southern varieties like Mammoth Yellow and Delsta which were too late, and Cornbelt varieties like Macoupin which were too early. Varieties of the Arksoy group, including Ralsov, appearing just before the war, made all the difference in the world. Then came Ogden and now S-100, a development of this Experiment Station. As a result, yields doubled and grain soybeans became established.

With better varieties came better cultural practices. But in both there is room for improvement.

Look at Future

My guess is:

1—That we will grow slightly under ½ million acres of cotton this year (allotment 465,000) and a full ½ million acres of soybeans.

2—We'll still have a lot of farmers planting beans too early—ahead of cotton—"to get them out of the way," despite the facts that soybeans require only a fraction as much labor. This early planting is not conducive to top yields.

3—Where there is heavy land we'll still plant soybeans on the heaviest because they can "take it" and moreover, improve the tilth of that soil for succeeding crops.

4—Beans will go on the wet lands because of their latitude in planting date.

5—Of more significance than any of these, we in southeast Missouri still haven't caught the vision of the possibilities of double-cropping soybeans and small grain. This double use of land will pay well, I'm convinced, more generally than it is being used.

As to variety, I think that further improvement of the medium late—130 to 135 day group—would be most interesting to us for reasons of harvesting and double-cropping.

In conclusion, southeast Missouri farmers like the soybean crop. We believe soybeans "like" southeast Missouri. A dominant wish is that we could look forward to improvement in market outlets and market practices with the same assurance that we look forward to further improvement in production.

Dewey Neely completes soybean harvest on his farm near Senath in southeast Missouri.

SOYBEANS IN THE *Minnesota Cropping System*

By GEORGE A. POND

University of Minnesota

SOYBEANS HARVESTED for beans are a relatively new crop in Minnesota. Although raised for many years as a minor forage crop, it took the high prices of the war and postwar period to stimulate interest in beans as a cash crop. Production figures for the state since the first official estimate in 1938 are shown in Table 1.

At a peak acreage in 1947, 4.3 percent of the tillable land in the state was in soybeans harvested for grain. By 1949, this had dropped to 3.3 percent. Minnesota ranked fifth among the states in soybeans harvested for beans in 1947 and 1948 and dropped to sixth place last year. The acreage in 1949 was only a little over one-half of that in Iowa and 83 percent of that in Missouri.

It is interesting to note that soybeans are concentrated largely on the more productive soils. The six states rated highest in the acreage of soybeans harvested for beans contain 70 percent of all the land in the United States rated as "excellent" and 40 percent of all "excellent" and "good" land combined.

Soybean production in Minnesota is largely concentrated in the southern one-third of the state. In only 19 counties was as much as 5 percent of the tillable land in farms planted to soybeans harvested for beans in 1949. These counties are as follows:

Blue Earth	15.3	Martin	7.2
Faribault	13.2	Waseca	7.1
Mower	13.0	Dodge	7.1
Freeborn	11.0	Jackson	6.8
Renville	10.9	Redwood	6.4
Chippewa	10.4	Swift	6.1
Brown	9.0	Dakota	5.9
Nicollet	8.3	Sibley	5.7
Watonwan	8.0	Lac Qui Parle	5.6
Cottonwood	7.5		

These counties are distributed among four type-of-farming areas. Area one in southeastern Minnesota and area two in south central are primarily dairy areas with small farms and considerable emphasis on the production of feed crops. In area three in southwestern Minnesota and area four in west central, farms are larger with more emphasis on meat production and cash sale crops.

The index of crop yields in these county groups based on the state average are area one, 101; area two, 115; area three, 110; and area four, 92. The least productive soils are found in area one but higher precipitation partially offsets this disadvantage. The same general soil associations, largely Clarion and Webster, predominate in areas two and three, but area two has more precipitation. The soils in area four are productive soils, largely Barnes and Parnell, but the precipitation is materially lower than in the other areas.

The acreage of the principal crops grown in the counties with more than 5 percent of the tillable land in soybeans harvested for beans in 1949 are shown in table two for 1939 and 1949. The percentage changes in the acreage of these crops for the ten year period are shown in table three. The acreage of corn was increased in every county, of oats in 14 counties, and of flax in 12 counties.

Although the percentage increase was greatest for soybeans, the increase in acres was much greater in case of corn and oats and in some counties in case of flax also. In all counties there was a sharp reduction in the acreage of barley, wheat, and rye and, with one exception, of hay and pasture also. Since these changes were occurring simultaneously, it is difficult to determine just what adjustments were made to provide a place for soybeans.

The relative shift of crops is best shown in Table 4. For these 19 counties, 47 acres of soybeans, 40 acres of corn, 9 acres of oats, and 4 acres of flax replaced 34 acres of barley, 40 acres of hay and pasture, 20 acres of wheat and 6 acres of rye.

These proportions vary somewhat among different type-of-farming areas since both the crop distribution in 1939 and subsequent changes varied between counties and areas. The net result in every area was a very material increase in the proportion of tillable land in cultivated crops and in areas two and three, a sharp reduction in hay and pasture (See Table 5).

Shifts to Cash Crops

In view of the growing need for more emphasis on soil conservation in these areas these shifts must be viewed with some concern. They reflect in part at least, adjustments growing out of the wartime scarcity of farm labor and in part, changes in relative crop costs and returns. With labor scarce and high in price, livestock production was curtailed and attention was shifted to cash crops which required less labor and for which the price situation was especially favorable. Even with windrow balers, field choppers, and other new hay making equipment, labor costs in hay making were not reduced through mechanization as were the costs of handling corn, soybeans or small grain crops.

Some information on the relative

● *From Dr. Pond's talk before the soybean processors' conference at Columbia, Mo., Mar. 2.*

GEORGE A. POND

costs and returns of competing crops in these areas are shown in Table 6 to bring out the comparative advantage or competitive status of soybeans. Since the cost of producing an acre of the crops listed in Table 6 is computed by the usual farm cost accounting procedure it is apparent that the gross value per acre is approximately as significant a measure of relative profitability as the net return figure.

The gross value per acre of the seven crops listed in Table 6 are shown in Table 7 for each of the 10 years from 1940 through 1949. Corn was the most profitable cash crop by a substantial margin with flax and soybeans following in second and third places but quite close together. Increases in corn, flax, and soybeans would seem to be justified on the basis of comparative acre values of the crop. On the basis of this factor, however, one would expect flax to be increased as much as soybeans. One would hardly expect an increase in oat acreage in view of the low value per acre but oats are primarily a feed crop in this area and factors other than cash value account for the increase in oats. The decrease in barley, wheat, and rye acreage ranging from 65-70 percent might be expected on the basis of acre values.

Why More Soys

The increase in the acreage of soybeans harvested for beans cannot be explained altogether on the basis of the relative return per acre as compared with competing crops. There are other factors that contribute to the popularity of the crop. Some of these are as follows:

1—The labor requirements are low, especially if custom combining is employed.

2—Soybeans do not compete for labor at peak periods as do some of the other crops in the area.

3—Soybeans can be planted later than other crops with reasonable assurance that they will mature. This gives them an advantage in a wet spring.

4—As a cultivated crop they aid in weed control.

5—They can stand drouth and wet weather better than competing crops, especially flax.

6—There is seldom a total loss since the crop can be cut for hay if too late to mature beans.

7—The crop can be harvested for forage in years of short hay crops.

8—It does better on spring plowing than other crops.

9—It improves the physical condition of the soil and stores nitrogen taken from the air.

There are some factors, on the other hand that may tend to limit soybean production.

1—Soybeans leave the soil loose and more subject to wind and water erosion than do flax and small grain crops.

2—The yields are low relative to states farther south. For the past 10 years the average yield per acre was 25 percent below that of Illinois, 18 percent below that of Iowa and Indiana, 15 percent below Ohio and 3 percent below Missouri.

3—Corn is not only more profitable as a cash crop, but excels most other competing crops in economical feed production in this area. If both corn and soybeans are increased, this raises the cultivated crop

(Continued on page 30)

TABLE 1.

Soybeans Harvested for Beans in Minnesota
(thousands of acres)

1938—12	1942—273	1946—610
1939—30	1943—246	1947—920
1940—52	1944—263	1948—844
1941—80	1945—452	1949—709

TABLE 2.

Acreages in Crops in 1939 and 1949 in Minnesota Counties with over 5% of Tillable Land in Soybeans Harvested for Beans.

Crop	Year	Type-of-Farming Areas 1	2	3	4	Total
		(thousand of acres)				
Corn	1939	195	617	712	268	1794
	1949	246	780	788	323	2237
Oats	1939	179	430	470	214	1293
	1949	193	490	498	211	1392
Hay and Pasture	1939	301	489	411	147	1348
	1949	240	293	235	137	905
Soybeans	1939	11	5	5	0	21
	1949	78	213	712	69	535
Flax	1939	20	110	178	93	401
	1949	20	110	186	125	441
Barley	1939	50	206	222	94	572
	1949	13	78	59	49	199
Wheat	1939	27	124	44	136	331
	1949	13	29	16	55	113
Rye	1939	23	20	20	24	87
	1949	5	9	5	7	26

TABLE 3.

Percentage Changes from 1939 to 1949 in Crop Acres in Minnesota Counties with 5% of Crop Land in Soybeans Harvested for Beans.

Crop	Type-of-Farming Areas 1 Inc.	1 Decr.	2 Inc.	2 Decr.	3 Inc.	3 Decr.	4 Inc.	4 Decr.	All Inc.	All Decr.
Soybeans	689	—	4707	—	3721	—	18420	—	2552	—
Corn	27	—	26	—	25	—	21	—	25	—
Oats	8	—	14	—	6	—	—	2	8	—
Barley	—	75	—	62	—	74	—	48	—	65
Flax	—	1	—	5	—	35	—	10	—	—
Wheat	—	54	—	76	—	54	—	60	—	66
Rye	—	76	—	57	—	74	—	72	—	70
Hay and Pasture	—	20	—	40	—	43	—	7	—	33

TABLE 4.

Relative Amounts of Increases and Decreases of Crops in Minnesota between 1939 and 1949 in Counties with Over 5% of the Tillable Land in Soybeans Harvested for Beans.

	Type-of-Farming Areas 1	2	3	4	All
Increases					
Soybeans	51	49	45	44	47
Corn	38	37	46	36	40
Oats	11	14	7	—	9
Flax	—	—	2	20	4
	100	100	100	100	100
Decreases					
Hay & Pasture	47	45	46	7	40
Barley	29	30	43	29	34
Wheat	11	22	7	51	20
Rye	13	3	4	11	6
Oats	—	—	—	2	—
	100	100	100	100	100

TABLE 5.

Change in Proportion of Tillable Land in Cultivated Crops and in Hay and Pasture from 1939-1949 in Minnesota Counties with more than 5% of the Tillable Land in Soybeans Harvested for Beans.

		Type-of-Farming Areas 1	2	3	4	All
Cultivated* Crops	1939	24.4	29.8	33.6	26.0	29.7
	1949	38.4	46.6	49.9	38.0	43.7
Hay and Pasture	1939	35.8	23.4	19.3	14.3	22.1
	1949	28.3	14.0	11.0	13.2	14.8

* Corn and Soybeans

TABLE 6.

Comparative Cost and Returns Per Acre for Grain Crops in Southern Minnesota, 1945-49

	Corn	Flax	Barley	Soybeans	Wheat	Oats	Rye
Average Yield*	44.8	10.4	28.0	17.4	17.4	38.0	15.9
Average Price	$ 1.37	$ 4.47	$ 1.42	$ 2.26	$ 2.03	$ .73	$ 1.72
Value of Crop	61.38	46.49	39.76	39.32	35.32	27.74	27.35
Cost	25.23	27.52	24.77	25.00	26.98	23.79	25.17
Net Return	36.15	18.97	14.99	14.32	8.34	3.95	2.18

* 1940-49 Average yields.

TABLE 7.

Average Value per acre of Grain Crops in South Central Minnesota, 1940 - 1949

Year	Corn	Flax	Soybeans	Wheat	Barley	Oats	Rye
1940	$22.19	$15.84	$16.62	$14.88	$11.77	$10.91	$ 6.67
1941	30.32	20.45	24.33	13.74	16.31	10.40	6.36
1942	36.43	25.68	20.53	24.34	20.33	20.01	9.22
1943	43.55	28.87	25.76	25.10	19.41	23.30	12.19
1944	41.02	23.89	35.33	25.76	21.08	23.59	11.89
1945	41.79	34.25	31.66	31.22	32.89	29.37	26.24
1946	65.30	44.38	48.04	41.75	44.88	28.89	31.97
1947	80.48	72.03	53.11	46.00	58.43	39.68	37.68
1948	69.56	70.75	46.08	39.88	38.58	31.83	23.85
1949	51.30	38.52	38.96	33.68	31.80	23.11	19.08
Ave. Rank	1.1	2.5	2.8	4.3	4.5	6.0	6.8

Best Varieties for MINNESOTA, IOWA, MISSOURI

As recommended by Lambert, Weber and Feaster at Columbia, Mo., processor meeting

Within the last ten years soybeans have assumed an important role in the agriculture of Minnesota, said J. W. Lambert, at the Tri-State Soybean Processors' Meeting at Columbia, Mo., Mar. 2. In 1939 there were 30,000 acres grown for seed. In 1949 over 700,000 acres were harvested for seed.

Many factors have contributed to this great increase in soybean acreage. Important among them is the availability of good-yielding, early varieties, since the soybean is a full season crop and often encounters trouble from early fall frosts.

Results from yield trials conducted by the Minnesota Experiment Station indicate that several of the adapted varieties that mature in nearly all seasons are at least comparable in yield to the later-maturing varieties that are continually in danger of damage from early-occurring frosts, said Lambert. Such varieties as Ottawa Mandarin, Habaro, and Wisconsin Manchu 606 have yielded fully as well as and often better than later varieties such as Richland and Hawkeye.

Bob Weber and the Hawkeye variety which may be grown over most of Iowa, one or two tiers of counties in southern Minnesota, but is not recommended for Missouri.

The results with very late varieties like Lincoln and Bavender Special have been very disappointing even in years such as 1948 and 1949 when first killing frosts occurred in middle or late October.

The varieties recommended by the Experiment Station for the principal soybean-growing region of Minnesota, roughly the southern one-fourth of the state, include Ottawa Mandarin, Habaro, Wisconsin Manchu 606, and Monroe.

In the remainder of the state, where earlier varieties are needed, Flambeau and Kabott are recommended. Ottawa Mandarin can also be grown somewhat farther north than Habaro, Wisconsin Manchu 606 and Monroe.

Of the recommended varieties Ottawa Mandarin is outstanding in stiffness of plants. The plants are relatively short, however, and the pods grow fairly close to the ground. Monroe on the other hand while lodging somewhat, grows tall and bears its lowest pods relatively high from the ground. All of the recommended varieties have a fair to good oil content in their seeds with the exception of Habaro, Lambert said.

Varieties other than those recommended which are grown to at least some extent in Minnesota and which are of suitable maturity include Earlyana, Pridesoy, Wisconsin Mandarin 507, and several strains of Manchu. Another in this group is the Canadian variety, Capital, which is being promoted by certain seed companies in the state.

Certain varieties like Richland and Hawkeye are being grown in the southern one or two tiers of counties particularly in the central and western part with some degree of success. On farms that are fertile and well drained where these varieties can be planted reasonably early, some farmers find them satisfactory.

Such late varieties as Lincoln and Bavender Special are grown to a very limited extent. They present a constant hazard with respect to maturity and are to be discouraged, according to Lambert.

There are a number of new experimental strains which have been tested for a number of years and which give promise of being very useful in Minnesota. None of these will be of importance in soybean production in the state, however, until seed supplies are greatly increased.

With respect to seed supplies of recommended varieties, there is in the state a considerable amount of seed of each of the following: Flambeau, Ottawa Mandarin, Habaro, and Wisconsin Manchu 606. Supplies of Kabott seem to be very small. Monroe, which is being released to certain approved growers of certified seed in 1950, will not be in sufficient supply to take care of the needs of farmers in general before 1951 or 1952.

Iowa Varieties

Soybean varieties "tailor-made" by plant specialists to fit various sections of Iowa will be the best for growers in 1950, said C. R. Weber, Iowa State College agronomist.

Adams, Hawkeye, Lincoln, Earlyana and Chief are varieties recommended in Iowa for the coming year.

Adams was released to Iowa growers in 1949. It grows well in central and southern Iowa, but it is not generally recommended for the northern three tiers of counties in the state. Weber reported that Adams yields slightly higher than Lincoln, an older variety recommended for the same area.

Adams ripens a few days earlier than Lincoln, is the same height and has a little higher oil content. It is being recommended to share the Lincoln acreage for the coming year. Seed of Adams for 1950 must be obtained from county seed distribution committees.

The Lincoln variety is the most extensively grown in the Midwest. It has gained recognition because of its

high yield, ability to stand until combined and because of its high oil content.

Weber recommended Hawkeye soybeans for northern and central Iowa. He said they yield 4 to 6 bushels more per acre than the Richland variety which was once popular in the same area. Hawkeye is 4 inches taller and has a higher oil content than Richland.

Hawkeye should replace all the Richland acreage and may be used for delayed planting in southern Iowa. When Hawkeye is grown in extreme northern Iowa, Weber advised planting a little early—May 10-20.

He said that the Earlyana variety is best suited for planting on soils of medium fertility in northeastern and northern Iowa.

The Chief soybean is well adapted to less fertile soils in the southern tier of Iowa counties.

For Missouri

No one soybean variety is well adapted to the entire state of Missouri, according to Carl V. Feaster, assistant agronomist for the U. S. Regional Soybean Laboratory at the University of Missouri. This is due to differences in soil and climatic conditions, Feaster told the soybean processors' meeting at Columbia Mar. 2.

For this reason the recommended list for Missouri includes varieties that differ widely in maturity.

The most productive varieties in any particular area are usually those that utilize all or most of the growing season, Feaster said. Varieties so early that flowering and seed development occur during the normally hot, dry periods of midsummer usually produce low yields of poor quality seed; and varieties not adapted because of their long growth period are subject to frost damage in the fall.

For convenience, Feaster divided the state into four regions. The northern fourth of the state is designated as northern Missouri, the central half as central Missouri and the southern fourth is sub-divided into southern Missouri and the southeast lowlands.

He pointed out that the recommendations are based on yield tests at different locations in the major soybean producing areas. The yield tests are conducted in conjunction with the soybean breeding program and provide a means for comparing the new strains developed by the breeding projects with commonly grown varieties.

Northern Missouri

Chief and Lincoln are the best varieties for northern Missouri, according to Feaster. The two have been compared with Illini and Dunfield in northern Missouri for several years. Chief has averaged about 3 bushels higher than Lincoln, and Lincoln in turn has averaged about 2 bushels higher than Illini or Dunfield. Adams has also been tested since 1944. Its yield compares with Illini and Dunfield but is lower than Lincoln.

Lincoln should be restricted to the more fertile soils, Feaster said. On good land, Lincoln is comparatively resistant to lodging and stands well for combining. Also its early maturity permits release of the land for timely seeding of fall sown grain.

Chief yields higher than Lincoln on less fertile soils; but on fertile soils it grows too tall and lodges badly.

The acreage of Hawkeye in Missouri has been increasing considerably the past 2 years, but it is too early to produce consistently high yields year after year Feaster said. The years 1948 and 1949 were favorable for early maturing varieties. As a result Hawkeye yielded well. But over a period of years it is definitely inferior in yield to Lincoln or Chief.

Central Missouri

Chief and Wabash are adapted to the central part of the state, according to Feaster. Wabash is a new variety that originated from a cross of Dunfield and Mansoy. It was developed cooperatively between the agricultural experiment stations of Indiana, Illinois, Kansas and Missouri and the U. S. Regional Soybean Laboratory.

Wabash is similar to Macoupin in type of growth. The plants stand well for harvesting and the variety has good resistance to shattering.

The variety is best adapted to soils of average or better fertility. On these soils it is superior to Boone, Macoupin or Chief in yield, oil content, standing ability and seed quality. On the lighter soils where lodging is not a problem Chief is better adapted than Wabash.

Lincoln may be grown in central Missouri on highly fertile soils where early maturity is desired. Or it may be used for late planting. However, Lincoln is not a good substitute for mid-season varieties in the regular cropping system or under normal conditions according to Feaster.

Plant of S-100, a good variety for southern Missouri, but low in oil content.

Southern Missouri

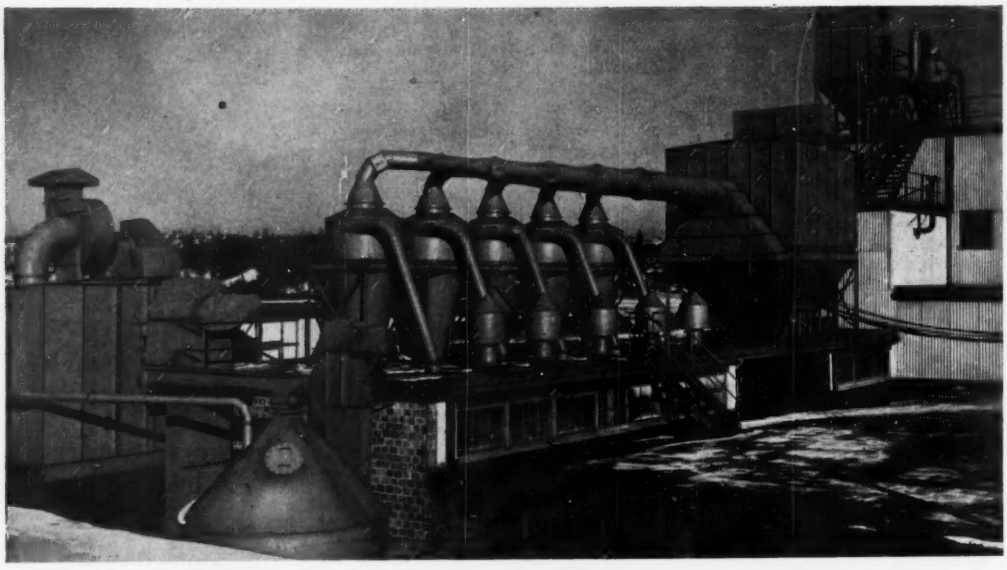
Chief, Wabash and S-100 are adapted to this area. Chief and Wabash are recommended for late planting or if early maturity is desired. S-100 is recommended for early planting.

Southeast Lowlands

Ogden, Ralsoy and S-100 are the best varieties for the southeast area. Ogden is a green-seeded type that matures at about the same time as Ralsoy. Over a period of years it has outyielded Ralsoy from 3 to 5 bushels at the Southeast Missouri Experimental Field. Ogden stands well for combining but has a very objectionable tendency to shatter severely under certain conditions, Feaster said.

S-100 should be grown if medium early maturity is desired. It ma-

(Continued on page 32)



Cyclones and dust collectors for the soybean milling operation at Monsanto Chemical Co.'s soybean glue plant in Seattle, Wash.

WORLD'S LARGEST *Soy* GLUE PLANT

It seems logical that the largest soybean glue plant in the world should be located in Seattle, Wash. For Monsanto Chemical Co.'s million-dollar operation there, completed in 1948, is near the origin of two developments which together have grown into a lusty giant—the western plywood industry.

The first commercial production of plywood in this region was in a small Portland, Ore., plant in 1904.

This is one of six concrete storage bins where Monsanto stores its soybean oil meal for glue operations after being conveyed from car on siding.

The plant peeled fir and cottonwood for wooden drums and baskets. It also glued some of peelings cross-grain for door panels. Today the output of "glued peelings" in the West alone is in the neighborhood of 3 billion square feet a year, more than half of the nation's total plywood production, both hard and soft. But the drum and basket factory used starch glue.

In 1908, 200 miles to the north, in Seattle, I. F. Laucks set up an analytical laboratory which later became a consulting laboratory. It was this firm, I. F. Laucks, Inc., which contributed as much as any one thing to the rapid growth of the plywood industry. I. F. Laucks pioneered the use of soybean glues, today the most widely used adhesive in the industry. The basket maker's door panels and plywood adhesives have come a long way since.

In 1944, I. F. Laucks, Inc. became a member of Monsanto Chemical Co.'s world-wide operations. It is now the company's western division. The facilities of the two companies naturally complemented one another, because Mansanto had established itself in the field of synthetic resins and plastics. These are the materials which have given new impetus to the plywood industry in the form of waterproof, weatherproof and even fire-resistant glues.

One of Monsanto's first decisions was to increase the production of soybean adhesives in anticipation of a greater postwar demand for plywood. The new plant, a brick and Transite structure a few miles from the old plant and adjacent to Boeing Field, is a marvel of engineering. From its pneumatic soybean meal unloader to its high-speed bagger, it is highly mechanized and automatic. It has a capacity of 700 tons a month on a one-shift, 5-day-week basis.

Soybean meal is carried by an underground screw conveyor to a bucket elevator that raises it to the top of six concrete storage bins, each holding 400 tons. A louver at the upper end of each bin allows fresh air to enter. Dust-laden air is drawn off into a Draco dust collector.

Automatically controlled conveyors tap the six storage bins simultaneously (thus blending the meal) and carry it at the rate of 20,000 pounds an hour to the steel daily-use bin.

From the daily-use bin the meal passes through a magnetic separator, up a bucket elevator and to a conveyor that feeds five hammer mills. Each mill is powered with a 60-hp. motor and has a capacity of 1,750 pounds an hour. They reduce the meal from 80-100 mesh to 200 mesh.

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Fans blow the meal up a 40-foot pipe to a collector above five Bar-Nun gyratory sifters, each with three silk screens, operated at 320 rpm. Particles larger than 60 mesh are screened out and sold as soybean tailing. Those of 60-200 mesh are returned by gravity to the hammer mills.

Flour from the sifters goes to two 10,000 pound steel surge bins in the glue department. These have automatic Richardson scales. Flour is dumped from one of the surge bins into a 2,500-pound horizontal ribbon pre-mixer. Meanwhile sodium salts and other alkaline chemicals have been ground in a hammer mill and weighed into the mixer. Other ingredients that do not require grinding are also added. Some 200 pounds of defoaming liquids and petroleum solvents are weighed in through a solenoid valve from two scale tanks.

After 20 minutes of mixing, a gate in the bottom of the mixer opens and discharges the material to conveyors that take it to a 5,000-pound steel concentrate tank with a live bottom circular feeder. Concentrate is automatically weighed into a 1,500-pound mixer (with a 20-hp. motor) in the ratio of one part of concentrate to two parts of flour from the second surge bin. The time cycle is: 5 minutes for charging, 1 minute for mixing. The mixture goes automatically to two similar mixers where it remains for 13 minutes.

Finished dry glue goes to a bucket elevator with a capacity of over 6,000 pounds an hour, through a gyratory scalper that picks out any foreign matter. It then goes into hoppers that release it into 100-pound bags.

The packaged product is palletized and stored for shipment to plywood mills throughout the Northwest.

MISSOURI KEYNOTE: SOYS NEVER FAIL

Soybeans make a crop in a year when all other crops fail. That was the keynote of the Tri-State Processors meeting at the University of Missouri, Columbia, Mar. 1 and 2.

Processors, agronomists and others interested in soybeans attended the 2-day session that was kicked off with a banquet Mar. 1.

Presiding were R. G. Houghtlin, president of the National Soybean Processors Association, Chicago; W. C. Etheridge of the University department of field crops; and J. W. Calland of the National Soybean Crop Improvement Council, Decatur, Ind.

C. V. Feaster, University of Missouri department of field crops, made the arrangements.

Banquet speakers were Carver Brown, Laddonia, Mo., producer; and H. J. Gramlich, general agricultural agent for the Chicago & Northwestern Railroad.

What W. A. Hemphill, Kennett, Mo. (center) was telling Sam Shirky, associate dean of agriculture of Missouri University (left) and W. C. Etheridge at the Columbia Processor meeting must have been good. Etheridge presided.

Said Brown in answering the question, "why I grow soybeans:" "I am the sole manpower on a 320-acre farm in the northeast Missouri prairie section. In growing a crop of beans the only time I have to get off the tractor is to fill the planter." The farmers who grow soybeans in Brown's area have money—often they grow a crop of beans worth more than the land on which it is grown.

Soybean production in the respective states of Minnesota and Missouri was covered by George Pond, division of agricultural economics, University of Minnesota, and J. R. "Dixie" Paulling, Deering Farms, Deering, Mo.

Said Pond: There are 19 counties in Minnesota with 5 percent or more of their farm land in soybeans. Although soybeans rank third in average returns per acre among Minnesota crops there are other financial reasons for the remarkable increase in soybean acreage in that state.

Some of the more important reasons for the increase in Minnesota soybean production, according to Pond:

1—Soybeans are a surer crop than any other.

2—They are more resistant to drought.

3—They can be planted later than other crops and still mature.

4—They require less labor and do not compete with other crops for labor.

Pond felt there will be a big increase in soybean acreage in Minnesota in 1950. The amount of increase depends on the spring. An early spring will mean more oats and fewer beans.

Said Paulling: Soybeans rank sec-

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ond among crops in cash value in southeast Missouri. The reason farmers raise them is their value as a cash crop.

In this area feed crops are of little value as livestock are few. Because of the wide range of planting dates soybeans can be planted when a wet spring makes it impossible to plant cotton.

And Etheridge summed it up: Never has there been a complete soybean crop failure. Other crops may have features that offer more resistance to unfavorable weather. But the over all characteristics of soybeans make them by far the superior crop for unfavorable crop conditions.

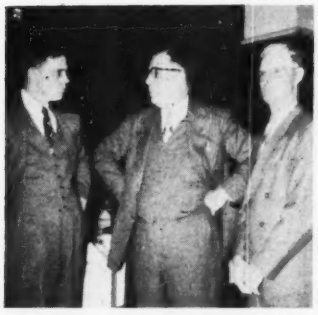
Meal and oil may be on their way back to prewar price levels, said H. M. Haag, Missouri Farmers Association, Columbia. He predicted 7 to 8 cent oil and $50 meal from the 1950 crop. Meal may even go as low as $35 and oil to its prewar level, said Haag.

Haag said that after all wars there have been periods of from 15 to 30 years of declining prices unless "the money was monkeyed with." He said he believed we will have 2½ more years of falling prices, then the government will be forced to devaluate the currency.

Haag painted a not-too-rosy picture, not only for the soybean industry but for the U. S. as a whole.

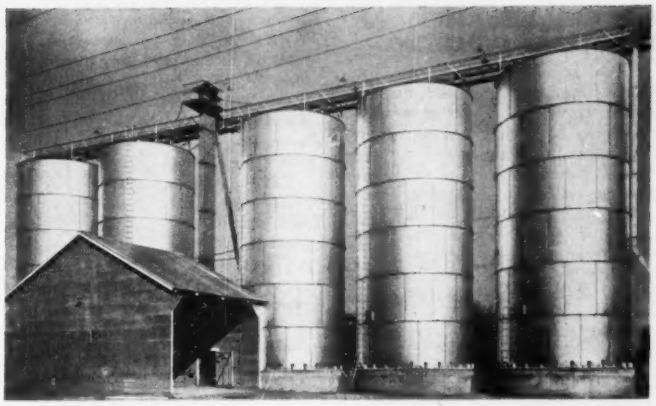
Soybean varieties for Minnesota, Iowa and Missouri were discussed by: J. W. Lambert, department of agronomy, University of Minnesota; C. R. Weber, farm crops subsection, Iowa State College; and Feaster.

Each said better varieties are on the way, and each said a new variety will be in general production in his state this year—Monroe in Minnesota, Adams in Iowa and Wabash in Missouri.



—Photos by Paul C. Hughes

From left, C. V. Feaster talks to H. J. Gramlich of Chicago & Northwestern Railway and Carver Brown, Laddonia, Mo. Feaster made program arrangements and Gramlich and Brown were speakers.



Pictured above is the elevator at Allen-Davis, Matthews, Mo., consisting of 5-steel bolted tanks 21 feet in diameter by 48 feet high, with a capacity of 14,100 bushels each.

The installation complete with tanks, elevating and conveying equipment was furnished by Dabney-Alcott Supply Co., Memphis, Tenn. . . . and is one of the numerous installations supplied by them for handling of soybeans and other grains.

Elevators and storage layouts can be supplied for local requirements.

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SEES GREAT PROGRESS IN SOYBEAN INDUSTRY

"New soybean varieties are constantly appearing on the horizon. These represent the careful work of scientists," said H. J. Gramlich, general agricultural agent for the Chicago & Northwestern Railroad, Chicago, at Columbia, Mo., Mar. 1.

Gramlich appeared on the program of the Tri-State Processors Conference.

"They bring with them improved yield, oil content, standability, disease resistance and various other factors.

H. J. GRAMLICH

"The nine favored varieties used in the first cooperative variety testing work in 1936 throughout the United States have all been discarded. In 1942 Ed Dies in his book, Soybeans—Gold from the Soil, devoted 16 pages to soybean varieties. None of today's popular varieties appear in this list.

"Soys have been accused of being hard on the land. We have learned how to grow them and at the same time protect our soil. With strip farming and terracing the problem is fairly simple. The use of two rows of beans alternated with two rows of corn helps. Experimental data recently released tend to show that the amount of top soil eroded from bean fields is actually less than that from corn fields.

"The population of the United States has doubled in 50 years," said Gramlich, "from 75 million in 1900 to 150 million today.

"It takes a great deal of food to supply today's population. Food production will continue to be America's most important basic industry. We must do all in our power to render improvement in this great field."

— s b d —

POND

(Continued from page 23)

acreage in excess of soil conservation limitations.

4—In so far as soybeans displace hay and pasture crops, a serious soil depletion hazard is created.

The brief history of soybeans as a cash crop in Minnesota does not give an adequate basis for appraising their permanent place in our cropping systems. They have been introduced under abnormal conditions created by the war situation. They have been more or less on an opportunist basis. Farmers are gradually learning how to handle them from the standpoint of maximizing yields. Some of the yield disadvantage as compared with other states may be lessened as cultural practices become perfected and better adapted varieties are developed. The relative price of soybeans and competing crops will be an important factor in determining the acreage but certainly not the only one.

It is too early as yet to say just how Minnesota crop rotations will be adjusted to give soybeans a more or less regular place in crop succession. However, it seems safe to conclude that soybeans harvested for beans will continue to hold much of the acreage they have taken from wheat, rye, and barley. It is hardly likely and certainly not desirable that they will continue to displace hay and pasture. The decrease of sod crops was doubtless due to factors other than the introduction of soybeans as a cash crop.

— s b d —

STAG AT HIAWATHA

The annual stag dinner for farmers, elevator operators, feed and seed dealers co-sponsored by the Thomson Soya Mill, Hiawatha, Kans., and Dannen Mills, St. Joseph, Mo., was held at Hiawatha the evening of Mar. 3.

A record crowd from northwest Missouri, southeast Nebraska and northeast Kansas was present for the "Bean Bust" and to hear the talk of J. W. Calland, director of the National Soybean Crop Improvement Council, Decatur, Ind.

Calland forecast that there will still be a very favorable market for soybeans in spite of a probable increase in soybean acreage due to acreage allotments on other crops in 1950.

— s b d —

NEW DIGEST PAPER

Commencing with this issue the Soybean Digest is being printed on a new paper stock, known as Manchester Machine Coated Book. Your editors consider this a clearer sheet with a better finish than the paper they have been using.

Comments on the new paper from our readers will be welcome.

Incidentally, the mill that manufactures the paper used in the Soybean Digest uses an Alpha protein derived from soybeans for coating a number of its papers.

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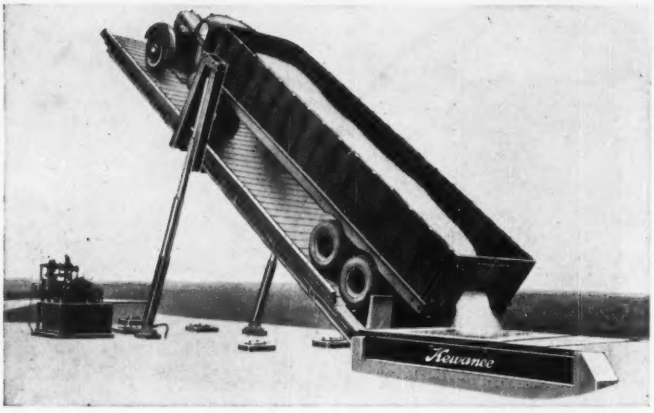

Kewanee's new pitless dumper.

NO PIT REQUIRED FOR TRUCK DUMPER

The Kewanee Machinery & Conveyor Co., Kewanee, Ill., has developed and is getting into production on a new style hydraulically powered platform truck dumper that will require no pit beneath the dumper platform.

The objective in designing this new model Kewanee dumper was to cut foundation construction costs to a minimum. All non-functional construction is completely eliminated. As shown above, the cylinders and power unit are mounted at the side of the dumper. It is, therefore, only necessary for the customer to provide footings for the dumper platform to rest on when it is in the down position.

On good level ground, the installation can be accomplished with as little as 12 cubic yards of concrete for dumper footings and abutments, which is from 15 percent to 20 percent of that necessary for the present model.

Contractors, grain men, and oil mill superintendents who have seen the experimental model at the plant of Kewanee Machinery & Conveyor Co., or have seen plans of this new style dumper, are enthusiastic about the savings in installation costs that it will bring about. Estimates of savings run from $3,500 as high as $10,000.

In areas with high water tables the advantage of avoiding deep cylinder pits is apparent. Protection from the elements need only be provided for the receiving pit and power unit.

The new style dumper will have the same twin motor hydraulic power unit and will use the same cylinders as are used on present models. The Kewanee Machinery & Conveyor Co. expects to have the new style dumper available in the 40-, 45- and 50-foot-length platform dumpers, all with hydraulic power.

VARIETIES

(Continued from page 25)

tures 10 days to 2 weeks earlier than Ogden or Ralsoy and yields about the same as Ralsoy. S-100 matures early enough to allow timely seeding of fall grain and as compared to the full season varieties, gives greater assurance of harvesting the crop under favorable weather conditions. Also, farmers with large acreages of soybeans are able to spread out the harvesting job by using S-100 and a full-season variety, with little or no loss in yield. The objection to S-100 is its low oil content.

For early maturity the Wabash variety is recommended. It has averaged slightly higher in yield than Chief, Boone or Macoupin; however, these varieties are too early for maximum yields in the southeast area.

Considerable effort is being directed toward the development of high yielding, high-oil-content strains similar to S-100 in maturity, Feaster said. Since S-100 has proved so satisfactory in everything except oil content, it has been used in many crosses with earlier, high-oil-content varieties. In general, the segregates from these crosses are higher in oil than S-100 but not as high as the high-oil-content parent. Segregates from crosses between Ogden and a few of the best varieties and strains of Wabash maturity appear to have greater possibilities than the selection from the S-100 crosses.

In northern Missouri there is a need for a variety similar to Lincoln in maturity but better adapted to lighter soils. With this objective in view, Hawkeye and Lincoln have been crossed with several tall strains and varieties. Several of the segregates from these crosses are as early or earlier than Lincoln but considerably taller.

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Heilman Early Big Grower in Killdeer Area

Calvin Heilman, most recently elected director of the American Soybean Association from Ohio, and his brothers are among the eminently successful soybean producers in the main soybean area of northwest Ohio. His home town is Kenton.

The Four Heilman brothers, Arlo, John, Iber and Calvin, work together as a unit. The partnership now owns about 1,825 acres around Kenton and in the Killdeer area of northwest Ohio; and on this acreage from 600 to 800 acres of soybeans are grown annually.

It was in the Killdeer area that the Heilmans led the way in showing what could be done with soybeans after farmers had been going broke for years trying to grow various other crops.

The Killdeer area is probably an old lake bed. The land is tough, hard to work, and it doesn't drain. Calvin and his brothers bought some of the land for $12.50 per acre and grew soybeans on it for at least 20 successive years. The soybeans have averaged 20 bushels per acre and the Heilmans say they have paid for the land each year.

At the present time the Heilmans are operating about 375 acres. The remainder of their land they are renting on a crop share and livestock share basis.

They plan to grow about 800 acres of soybeans in 1950, of the Monroe, Hawkeye and Lincoln varieties.

Heilman was born in Hardin County, Ohio in 1900. He is a graduate of the Kenton High School and Ohio State University. He has farmed since graduation from OSU, first in the partnership of D. B. Heilman & Sons, and later in the partnership of Heilman Brothers. He is unmarried.

He is a member of the Grange and Farm Bureau. He served 3 years on the board of trustees of the Hardin County Farm Bureau; and 6 on the board of directors of the Hardin County Farm Bureau Cooperative, 2 years as chairman. He helped organize the Hardin Soil Conservation District and is now chairman of the board of supervisors of the district.

CO-OP OPERATORS TO MEET IN PEORIA, ILL.

A conference of cooperative soybean oil mill operators will be held in Peoria May 1 to 3, R. T. Milner, director of the Northern Regional Research Laboratory at Peoria, has announced.

Conference is arranged jointly by the Laboratory and the cooperative research and service division, Farm Credit Administration, Washington, D. C., and is held at the Laboratory. Conference begins at 2 p. m. central daylight saving time Monday, May 1, and closes Wednesday noon, May 3.

The Laboratory staff will review and describe its active research work on soybeans and soy products, says Director Milner. The Laboratory will be open for inspection and conducted tours. Cooperative representatives will be given opportunities to discuss their operating problems.

Those in attendance will be limited to a certain number of representatives of the oil mills, the district Banks for Cooperatives and the U. S. Department of Agriculture.

Reservations are being made at Pere Marquette Hotel, Peoria, Ill.

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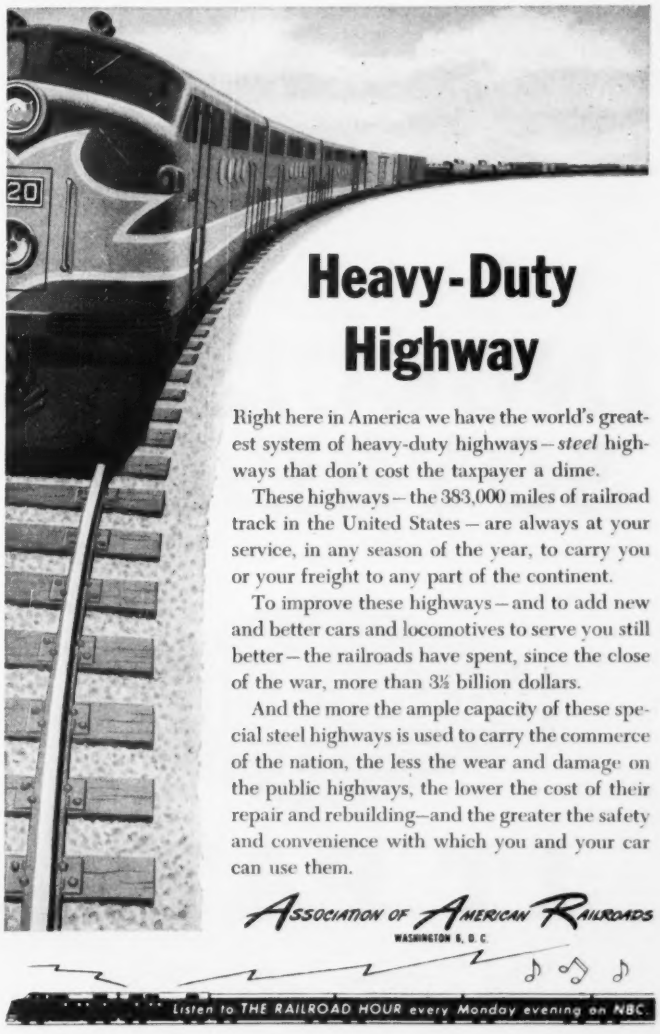
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Publications

NORTON'S STUDY ON OIL MARKETS OUT

Supplies of soft oils are still short in Europe because of the virtual absence of Manchurian soybeans on that market and the sharp decline in shipments of Indian peanuts and peanut oil, according to a U. S. Department of Agriculture report prepared by the Office of Foreign Agricultural Relations.

The report was written by Dr. L. J. Norton, agricultural economist, following his first-hand study of developments affecting the demand for fats and oils in 8 European countries. The project was conducted under the Department's Research and Marketing Act program while Dr. Norton was on leave from the University of Illinois.

Europe's acute shortage of food fats has ended, Dr. Norton reported, but United States fats and oils likely will continue to hold an important place in the West European market. Several of the countries studied would like to buy soybean oil or some other soft oil—such as peanut or cottonseed—to use in margarine.

The study covered the United Kingdom, France, Belgium, The Netherlands, Western Germany, Denmark, Czechoslovakia and Italy. Western Europe has provided the most important foreign outlet for U. S. fats and oils.

Single copies of the 34-page report, entitled EXPORT OUTLOOK FOR UNITED STATES FATS, OILS, AND OILSEEDS IN SELECTED EUROPEAN COUNTRIES, may be obtained free from the Office of Foreign Agricultural Relations, U. S. Department of Agriculture, Washington 25, D. C.

Soya in Baked Goods

In using soya in baked goods, the first thing to remember is that it has an affinity for water, or rather a very high water absorption. This of course varies according to the type of goods in which it is used.

Many bakers believe that if water is added to a mix it has to be "baked out" or will be given up in the form of steam. This is NOT the case with soya. It is the protein that absorbs the water very slowly. When the temperature is raised during baking much of the protein becomes insoluble and holds the moisture.

On prolonged heating or baking this moisture will not pass off as steam but is held in the goods, making them more moist, easier to cut and less crumbly.

Soya with its 43 percent of protein requires a great amount of moisture. If the moisture in the mix is insufficient to satisfy the soya protein, it will take the moisture from the other ingredients and thus bring about a binding effect with the resultant stodgy appearance of the goods.

Soya requires as a minimum its own weight of water for most confectionery and will take twice its weight for many types.

IS SOYA MORE THAN JUST A SUBSTITUTE. By Frank Longworth, F. Inst. B. B. (First of a series of four articles on soya in the baking industry.) Confectioner Baker, Oct. 1949.

Miscellaneous

INHERITANCE OF EARLINESS OF MATURITY IN SOYBEAN. By M. P. Singh and J. C. Anderson, New Jersey Agricultural Experiment Station, New Brunswick, N. J. Agronomy Journal. Oct. 1949.

The experiment was designed to study the inheritance of maturity in soybeans. F_2 and F_3 generations of six different crosses were used.

CRYSTALLINE VITAMIN B_{12} IN THE TREATMENT OF MEGALOBLASTIC ANEMIAS. By E. Schmatolla, A. Gibson and J. M. Carlisle. Postgraduate Medicine, Oct. 1949.

—sbd—

A private barter deal between Communist China and Japan has been submitted to the occupation and Japanese government for approval. It is said to involve exchange of 15,000 tons of Chinese soybeans via Tientsin for Japanese newsprint, textile and machinery parts.

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No. 10 GRAIN DOCKAGE SIEVES. Made of 20-gauge aluminum, 13-inch diameter, 1¾ inch inside depth. Precision and commercial grades. See catalog for perforations available and prices.

No. 372 THERMO-SAMPLER TORPEDO. For checking temperature, moisture and infestation with a single sample from any point in a bin. 3-foot extensions available. Price . . . . . **$15**. Extensions . . . . . **$1.30** each.

No. 20 TRIER. Double-brass tube, open handle. 40 inches in length, 1¾ inches outside diameter, 6 openings. Price . . . . . **$15**.

No. 64 SAMPLE PAN. For handling samples of grain for testing and grading. Standard in all respects. See catalog for prices.

No. 14 FOUR-IN-ONE SCALE. For weighing samples and mail, determining test weights per bushel, dockages, etc. Sensitive to 1/10 gram. Complete, with cup . . . . . **$39.50**. Without cup . . . . . **$36.**

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GRITS and FLAKES... FROM THE WORLD OF SOY

The March issue of Illinois Business Review contains an article on the soybean processing industry. It includes facts and figures on processing in Illinois and the market for oil and meal.

* * * *

A new "Lifetime" magnet recently made available by the Sprout, Waldron & Co., Inc., Muncy, Pa., is described in a new bulletin No. 11. Another bulletin No. 13 lists specifications and installation details. Both are available on request.

* * * *

Fire destroyed 15,000 bushels of assorted grains and damaged an elevator of the McKee Feed & Grain Co., Muscatine, Iowa, Mar. 19. Harry McKee, an officer of the company, estimated damage at between $100,000 and $200,000.

* * * *

Ralston Purina Co. will hold the grand opening of the new Purina mill at Bloomington, Ill., April 12. Governor Adlai Stevenson will cut the ribbon that officially starts the company's newest mill.

* * * *

The B. F. Gump Co. is conducting business from its new office and plant headquarters at 1325 S. Cicero Ave., Chicago 50, Ill. The new plant was necessitated by the building of a new super-highway through the old Gump property.

* * * *

Plans are underway for the 57th annual convention of the Illinois Grain Dealers' Association to be held May 9 and 10 at the Pere Marquette Hotel, Peoria, Ill., according to E. S. Herron, secretary, Gilman.

* * * *

E. Sanford Verry, associated with the firm of E. F. Verry & Sons, Armington, Ill., has been appointed treasurer of the Illinois Grain Dealers' Association to fill the unexpired term of his father, the late Thos. A. Verry.

* * * *

Dixie Machinery Mfg. Co., St. Louis, Mo., has just released a new bulletin covering its "Model 22 DD Hammermill." Copies may be obtained by writing the firm at 4200 Goodfellow Blvd., St. Louis 20.

* * * *

A new kind of bin construction for storage of peanuts and cottonseed has appeared in the South. Three concrete stave storage towers have recently been erected at Dublin, Ga., for the Southern Cotton Oil Co. Complete bulletins about stave storage towers will be furnished by Neff & Fry Co., Camden, Ohio, on request.

* * * *

Promotions in Swift & Co. oil mills include transfer of Lee S. Janet to superintendent of the Portageville, Mo., plant and E. H. Eubank's transfer to the Blytheville, Ark., plant as superintendent.

* * * *

Guide to the selection, care and use of power belting for tractors, combines and other types of farm machinery may be obtained from United States

SUDDEN PASSING OF JOHN H. CALDWELL JR.

John H. Caldwell, Jr., president of Hoosier Soybean Mills, Inc., Marion, Ind., was found dead in bed at his home there Feb. 19.

In ill health for the last several years, his condition was believed improved. Death was said to be due to coronary thrombosis.

Caldwell played an important part in the development of soybeans as a major crop in his part of Indiana, as well as in the development of other food products.

Native of Kansas City, Mo., Caldwell had resided in Marion for the past 14 years.

Commented the Marion Chronicle in an editorial on Caldwell's work in the Marion community: "Mr. Caldwell came to Marion 14 years ago and purchased the property then owned by Hobart Lugar, which included an elevator. This property was remodeled and fitted for use as a soybean mill. Meanwhile Mr. Caldwell began to contact farmers in the surrounding county area in an effort to interest them in raising soybeans, then a very minor crop in the area.

"As a result of his efforts many county farmers began to raise soybeans and in 1938, the first full year of soybean production, the local mill paid county farmers almost three-quarters of a million dollars.

"Mr. Caldwell and his associates carried on extensive experiments in the dehydrating of certain crops.

"In addition he was a good citizen and participated in the social, religious and business life of this community."

WILBUR-ELLIS COMPANY

BROKERS OF SOYBEAN OIL AND PROTEINS

Complete Domestic and Foreign Coverage

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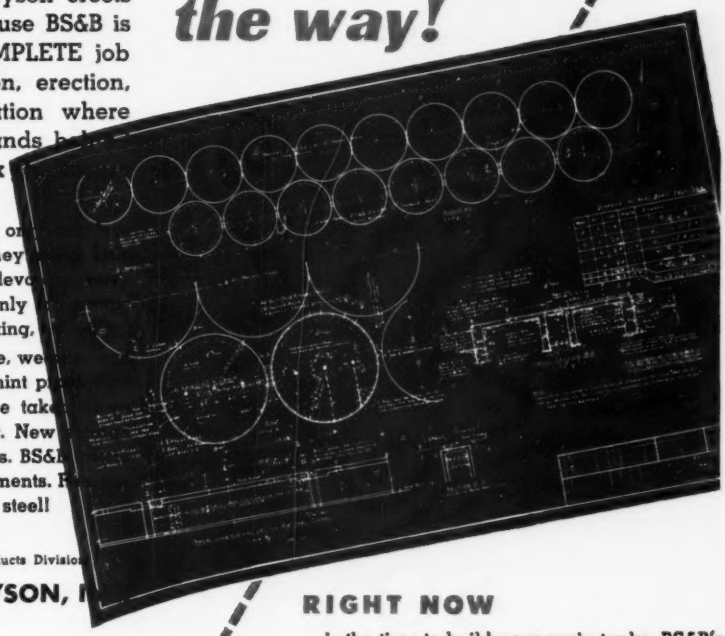
RESPONSIBLE

every step of the way!

You need only deal with one when Black, Sivalls & Bryson erects your grain storage. Because BS&B is equipped to do the COMPLETE job . . . planning, fabrication, erection, even machinery installation where necessary. And BS&B stands b[ehind] the quality of its work [to] your satisfaction.

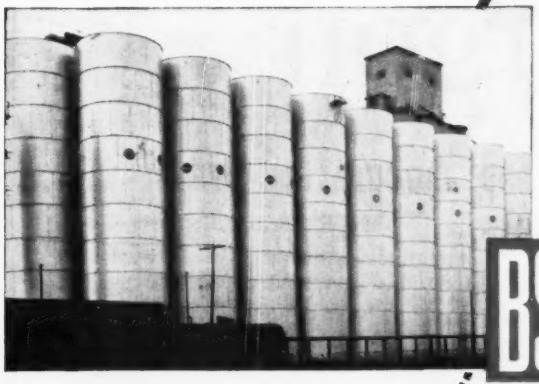
Bolted Steel Grain Tanks not o[nly] than ordinary storage . . . they [require] maintenance. Many BS&B eleva[tors] given 30 years' service with only [one] paint job. No chipping, no cracking,

BS&B Grain Tanks are firesafe, we[ather] wind resistant, insect and varmint p[roof] can be expanded, they can be tak[en down] and moved easily and quickly. New [storage] is a matter of DAYS, not months. BS&[B] them to your individual requirements. R[emem]ber, nothing is so versatile as steel!



Farm Products Section, Special Products Divisio[n]

BLACK, SIVALLS & BRYSON, I[NC.]



Long, double-row of BS&B Tanks now serving Worley Brothers, Portales, New Mexico. Planned and executed the BS&B way . . . backed by 58 years' tank experience.

RIGHT NOW

is the time to build your grain tanks. BS&B's erection crews are not yet fully booked. There's time to get your storage completed and ready for harvest if you act NOW! Later on, when the jam comes, you could miss out. Mail the coupon right now . . . TODAY! Get the facts and figures for yourself!

BS&B

all the way!

BLACK, SIVALLS & BRYSON, INC.
720 Delaware Street Sec. 3-514 Kansas City 6, Mo.

Rush complete information about BS&B Bolted Grain Tanks ☐. Add details for_____ bushels storage. ☐ Turnkey information. ☐ Have Sales Engineer call.

NAME_____

ADDRESS_____

TOWN_____ STATE_____

Rubber Co., mechanical goods division, 1230 Avenue of the Americas, New York 20, N. Y.

* * * *

Cargill, Inc., Minneapolis, has signed leases for an elevator to be constructed at Wilson, N. C., by Wilson County. It will have a 500,000-bushel capacity and will serve a wide area of production of corn, oats and soybeans. Construction should be complete by July 1.

* * * *

The Hubbard Milling Co., of Mankato, Minn., recently joined with the Farmers Elevator Co., of Frost, Minn., in sponsoring a "Sunshine Feed Party" for customers of the elevator.

* * * *

Dr. Kenneth A. Arnold, of St. Regis Paper Co., Oswego, N. Y., and Ted Paulsen, vice president in charge of purchases for Russell-Miller Milling Co., Minneapolis, are the principal speakers for the annual dinner of the International Institute of Milling Technology.

* * * *

Sprout-Waldron & Co., Inc., Muncy, Pa., offers a new "HD" Hammermill designed and engineered throughout for daily grinding on a high production basis. Reprints of a descriptive bulletin are available upon request.

* * * *

A. C. Ewer, manager of the Bemis Bro. Bag Co., Brooklyn plant, celebrated his golden anniversary with the company recently. His brother, F. M. Ewer of the Bemis Boston office, a vice president and director, reached his 50th anniversary with Bemis 3 years ago—a total of 103 years of service between them. Both continue active in the management of the company.

* * * *

"Jerome Increase Case—The Man and His Works" is the title of a brochure recently published by the J. I. Case Co., Racine, Wis., telling the story of the founder of the company.

* * * *

Valier-Spies Milling Co.'s, Marine, Ill., elevator was purchased by Alhambra Grain and Feed Co., Alhambra, Ill. Burnell Maedge of Marine will manage the firm under the name Marine Grain & Feed Co. The plant will

CHASE BAG APPOINTS

Frederick E. Gross has been appointed manager of Chase Bag Co.'s paper and paper bag division, F. H. Ludington, president, has announced. During many years of management experience Gross has gained a broad background in paper and paper bag manufacturing and allied industries. Since entering the bag industry 8 years ago he has organized mills and assisted in the design of plants for the manufacture of paper bags. Gross will make his headquarters in Chase's general sales office in Chicago.

SOYBEANS
Treated with
Spergon
REG. U. S. PAT. OFF.

SEED PROTECTANT AND INOCULATED GIVE

BETTER GERMINATION

Tests have shown yield increases of from 10-20% from Spergon treatment. Even a one bushel increase in yield will pay for the cost of treatment many times over. Machine-threshed seed with cracked or thin seed coats particularly need the protection of Spergon. Ask for Spergon when you buy your inoculant; they are compatible.

INCREASED YIELDS

Write for technical data sheet.

UNITED STATES RUBBER COMPANY

Naugatuck Chemical Division

NAUGATUCK, CONNECTICUT

US AGRICULTURAL CHEMICALS

Built by Blaw-Knox...

...TO MEET THE NATION'S NEED FOR FEED!

Chemical Plants Division was selected by Purina to design and build this Entire Solvent Extraction Plant!

Feed for live stock! To meet the ever-growing demand, the Ralston-Purina Company called on Chemical Plants Division to do the entire job of designing and building new soybean processing facilities. The new solvent extraction plant at Iowa Falls, Iowa, on a final test run, produces in excess of guarantee. It has been doing progressively better ever since.

Whatever your plant expansion or modernization plans—Chemical Plants Division offers you wide and diverse facilities, broad experience, skilled personnel to do the entire job with speed, efficiency and economy. Before you start—call in Blaw-Knox!

CERTIFIED RESULTS OF SOYBEAN EXTRACTION PLANT TEST RUN RALSTON-PURINA COMPANY, IOWA FALLS

	Guarantee	Average for 3-day test period
Pounds of beans corrected to 12% moisture	400,000	428,524
Average rate in tons per day	200	214
Per cent solvent loss	.70	.49
Residual oil in extracted flakes corrected to 12% moisture	.50	.39
Oil Quality — % moisture and volatile matter	.20	.18
Oil Quality — Flash point		over 300° F.
Average steam rate pounds per hour	8,500	7,773
Average process power KW	240	223

OPERATING AND SALES DIVISIONS—BLAW-KNOX COMPANY • BLAW-KNOX SPRINKLER • BUFLOVAK EQUIPMENT • BUFLOVAK MIDWEST CO. • CHEMICAL PLANTS* • THE FOOTE COMPANY, INC.** • LEWIS FOUNDRY & MACHINE • NATIONAL ALLOY STEEL • PITTSBURGH ROLLS • POWER PIPING* • UNION STEEL CASTINGS

*Operates as a division of Blaw-Knox Construction Company
**Subsidiary of Blaw-Knox Company

CHEMICAL PLANTS DIVISION

BLAW-KNOX CONSTRUCTION COMPANY
321 PENN AVENUE, PITTSBURGH 22, PA.

be equipped with modern machinery for grain handling, storage and grinding and mixing feeds.

* * * *

Bisbee Linseed Co. has announced that in the future all manufacturing and sales activities will be directed from its Chicago Heights plant instead of Philadelphia, Pa. The company's general office also will be moved to Chicago Heights.

* * * *

The radio program, Cavalcade of America, sponsored by the E. I. Du Pont De Nemours & Co., Wilmington, Del., closed recently with a story of the firm's technical service and how it assists growers in solving control problems by the effective use of farm chemicals in controlling insects and disease.

* * * *

Allis-Chalmers, tractor division, Milwaukee 1, Wis., has recently issued a bulletin describing the Model "G" tractor. It is especially suitable for the soybean grower because of its adaptability to any row spacing in which soybeans are commonly grown.

* * * *

"This is the Harvestore Story" is the title of a bulletin recently published by the A. O. Smith Corp., Milwaukee, Wis., illustrating and describing uses for their glass-surfaced steel storage tank.

* * * *

Farmers Cooperative Co., Dike, Iowa, held a soybean meeting Mar. 22. Dr. C. R. Weber, agronomist from Iowa State College, discussed adapted varieties and better cultural practices. Lincoln and Hawkeye are recommended for the Dike area.

* * * *

Joseph A. DeLisle, Portageville, Mo., has announced that plans are being made for the third annual National Soybean Festival to be held there Sept. 27-30. A yield contest is contemplated in connection with the festival, DeLisle says.

* * * *

V. D. Anderson Co., Cleveland, Ohio, has resumed publication of their house organ, The Expeller Press, under the new title of Anderson Extractor. The old name was not applicable to extraction processes.

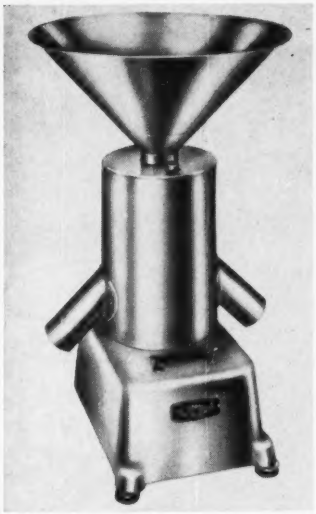
* * * *

Kellogg Co., Battle Creek, Mich., is plugging the protein content of its cereal, "Corn-Soya," in an advertising campaign in national circulation magazines.

* * * *

International Nutrition Laboratories' soybean milk manufacturing plant near Mount Vernon, Ohio, burned recently. Loss was estimated at $160,000 by H. W. Miller, Jr., superintendent.

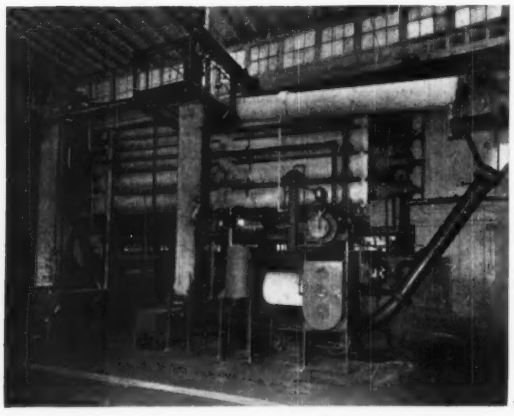
GRAIN DIVIDER



A new type of divider that handles both grains and seeds, and feeds as well, will be distributed by Seedburo Equipment Co., Chicago. Division and mixing on the new unit, the Gamet Precision Divider, are accomplished by the centrifugal action of a motor-driven revolving neoprene disc positioned under the hopper. Thorough testing has demonstrated accurate division and reduction to work size samples exactly representative of the original sample. The Divider is only 21 inches high and 13 inches square at the base, with a hopper capacity of more than 2,000 grams. One time-saving feature of the Precision Divider is easy cleaning. It is a job that can be performed in a few moments, since the unit can be quickly disassembled and re-assembled.

FOR SAFE, PROFITABLE EXTRACTION

...A PROVED AND TESTED NON-FLAMMABLE SOLVENT OIL EXTRACTION PLANT



● Here is a small (twenty-five ton), efficient extraction system especially developed for use in smaller operations. This plant, thoroughly tested and proved, uses non-flammable Trichlorethylene solvent and is manufactured under exclusive patent rights of Iowa State College. Operating data on this system, including figures on consumption and yield, will be provided on request.

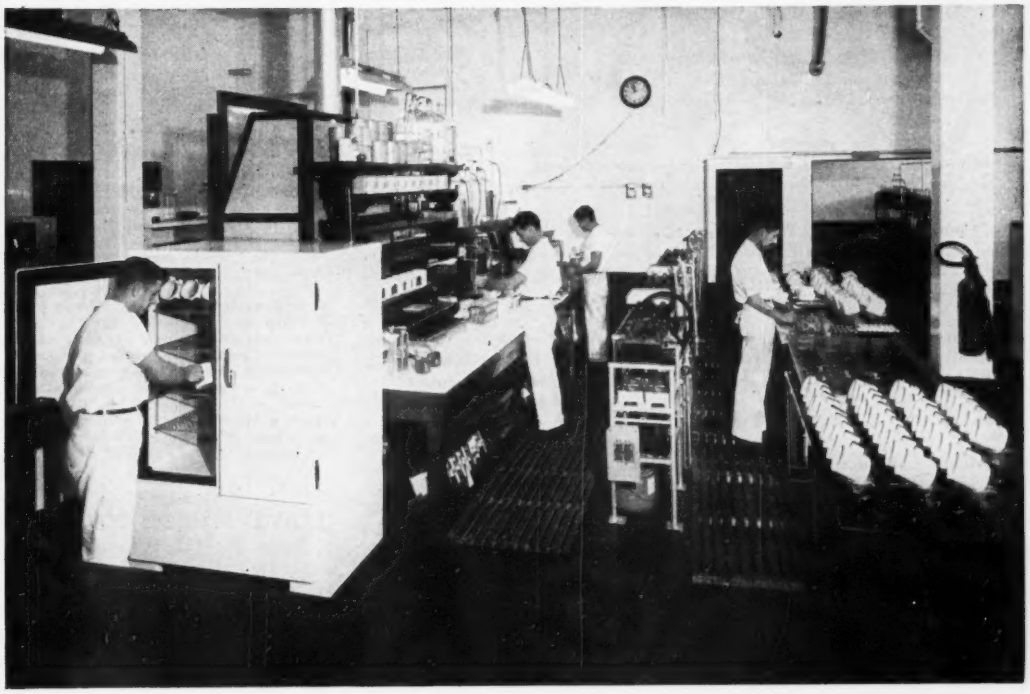
You are invited to see this plant in actual operation.

Write for additional information.

CROWN IRON WORKS CO.

1267 Tyler St. N. E. • Minneapolis 13, Minn.

Serving The Soybean Industry



The above is a view of our oil refining department at Memphis, Tenn., which has a capacity of 150 refinings daily. Our laboratories at Decatur, Ill., and Des Moines, Iowa, have the same type equipment for refining oils.

6 Chemical Laboratories to serve you.

- Decatur, Ill.
- Des Moines, Iowa
- Memphis, Tenn.
- Little Rock, Ark.
- Blytheville, Ark.
- Cairo, Ill.

WOODSON-TENENT LABORATORIES

MAIN OFFICES: 265 SOUTH FRONT ST. MEMPHIS, TENN.

SPECIALIZING IN SOYBEAN OILS — CAKE — MEALS — FEEDS

"Over ONE BILLION dollars worth of products analyzed since 1935."

Neff & Fry Co., Camden, Ohio, will complete additional grain storage bins for Fred Kile & Sons, Kileville, Ohio, in time for the wheat harvest. Added capacity is 60,000 bushels.

* * * *

Selvage & Lee, industrial public relations, Chicago, Ill., has announced the addition of Robert W. Wood to its organization. Before the war Wood was in the employ of the Borden Co. in the Midwest, and prior to that on the editorial staff of the Chicago Tribune.

* * * *

Wm. Rhea Blake, executive vice president of the National Cotton Council, recently announced the retention of John H. Todd of Washington as legislative counsel to the cotton organization in its Washington offices.

* * * *

Contract for construction of the 390,000-bushel addition to the elevator of the Missouri Farmers Association soybean plant at Mexico, Mo., was awarded to Jones-Hettelsater Const. Co., Kansas City, Mo.

* * * *

Continental Gin Co., Birmingham, Ala., announces the opening of a new office at Room 2407, 220 E. 42nd St., New York 17, N. Y. District manager will be A. Walter Gotta who has had many years of experience in this field in the East.

* * * *

Harry C. Smith Co., Inc., Memphis, Tenn., has been appointed sales representative for the chemical division of General Mills, Inc. in the Midsouth. The firm will handle General Mills' complete line of vegetable, animal and marine fats and oils as well as all organic chemical derivatives for the technical trade.

* * * *

Clyde C. McInnes, manager of the solvent extraction division of American Mineral Spirits Co., Chicago, recently returned from a series of West Coast activities. He spoke before the National Oil Mill Superintendents' Association in Fresno, Calif., covering recent innovations, modifications, and advancements in solvents.

* * * *

The Kansas City branch of Chase Bag Co. was honored recently by the Liberty Mutual Life Insurance Co. for its record of over 500,000 man-hours of production without a day of lost time.

* * * *

The Board of Directors of the Chicago Board of Trade has approved a recommendation that the Spencer Kellogg and Sons Concrete Elevator, 2200 S. Lumber St., Chicago, be qualified as a regular elevator for delivery of grain in satisfaction of futures delivery contracts. The elevator has a capacity of 850,000 bushels.

* * * *

The complete line of "Blue-Face" pulleys for bucket elevators and belt conveyors is described in Bulletin 33 available at Sprout, Waldron & Co., Inc., Muncy, Pa.

* * * *

W. B. Saunders, Cargill, Inc., Kansas City, Mo., formerly of the Chicago office of the company, has been elected to membership on the Kansas City Board of Trade.

WENT UP FAST

(Photo — Wells Farmers Elevator Co. Installation, Wells, Minn.)

Speedy erection of grain tanks was accomplished recently by the Marietta Concrete Corp. for the Wells Farmers Elevator Company, Wells, Minn., shown above. Erection of two 24-ft. x 60-ft. grain tanks was started on Oct. 29 and work progressed so rapidly that one of the tanks was actually being filled on Nov. 9. With the development of the "Air-Cell" stave made of lightweight aggregate which provides "moisture-free" storage, Marietta is now actively engaged in the grain tank manufacturing and erection field. The "Air-Cell" staves are manufactured in the Company's plants at Marietta, Ohio, and Baltimore, Md., and shipped to the site where they are erected by specially trained Marietta construction crews.

— s b d —

LEAVES WILSON CO.

James H. (Jim) Crain, trustee since 1933 of the enormous Lee Wilson & Co. interests in Mississippi County, Ark., resigned Feb. 27 in order to devote more time to his personal business.

Members of the firm elected 37-year-old R. E. L. Wilson III to succeed Crain, who will remain with the company in an advisory position, he said.

"I want to devote more time to my own business," Crain said. He owns farm land, a dehydrating plant and a gin in Mississippi County, has interests in several banks of Arkansas and oil well interests in Kentucky.

His son, John E. Crain, outside supervisor for the Lee Wilson Co.,

Sewrey - Gartside Company

SOYBEAN OIL BROKERS

F. A. Sewrey
W. T. Gartside
208 S. LaSalle St., Chicago 4

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Franklin 2-4732

It's A Waste
Of Time
And Money To...

Monkey Around!

You Can **BE SURE** *With*

Bronoco

EXTRACTION SOLVENTS

No matter what your oil recovery problems might be, there is a *complete* line of *proved* Bronoco Extraction Solvents from which you may choose the one with exactly the characteristics you want for faster, more efficient, more profitable operation.

Remember — The counsel and aid of an experienced Bronoco Technician is yours on any special problems. No obligation – he will be glad to help.

THE R. J. BROWN COMPANY
1418 Wittenberg Ave. • St. Louis 10, Mo.

Plants in Detroit, Louisville and St. Louis. Distribution facilities in many major industrial centers

David S. Jackman, vice president, treasurer and general manager, Kansas Milling Co., Wichita, has been re-appointed to a 6-year term on the board of governors, University of Wichita Foundation for Industrial Research.

* * * *

Thomas E. Kelley has been named manager of the newly formed feed department of E. F. Drew & Co., Inc., New York. Kelley formerly handled the feed department of the Wilbur-Ellis Co., New York.

* * * *

Recent changes in personnel at Chicago office of Swift & Co. include J. M. Record to handle analytical work in the oil mill department and F. A. Norris to take over the duties of H. P. Gould in the office of C. T. Prindeville. Gould went to the New Orleans, La. plant as assistant manager.

* * * *

A. E. Staley Mfg. Co., Decatur, Ill., has announced the appointment of two new representatives of the industrial sales division. Paul H. Prentiss, Park Ridge, Ill., formerly with American Maize-Products, New York, will work in Chicago and the Mississippi Valley states. Ronald W. Murphy, San Francisco, Calif., will serve the west coast territory.

* * * *

David E. Davidson was recently elected vice president for sales of the Link-Belt Co., with headquarters in Chicago. E. P. Berg was appointed general manager of the Pershing Road plant, Chicago, to succeed Davidson.

* * * *

Paul Olson of the Glidden Co., Chicago, was injured in an automobile accident which occurred when he was enroute to the formal opening of the firm's new plant at Indianapolis, Ind.

* * * *

Jeffrey Manufacturing Co., Columbus 16, Ohio, has announced the development of the Jeffrey MV (mechanical vibrating) conveyor. Bulletin No. 826 gives details of new conveyor, which handles abrasive, lumpy or rough materials.

will remain with the company for the present.

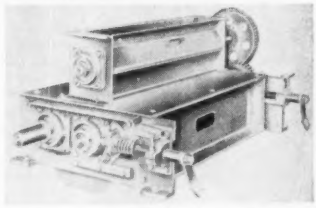
"There will be no other change in personnel," Wilson said. The new trustee-manager, known to his friends as "Bob" Wilson, is a grandson of the company's founder.

A graduate of Yale University, Wilson also is a veteran of Army service in World War II. He has been manager of the company's soybean mill at Wilson.

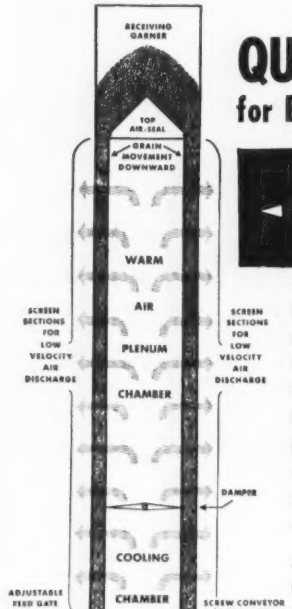
The Wilson interests include more than 50,000 acres of farm lands and numerous businesses and industrial establishments employing thousands of people.

—s b d—

FOR PELLET MILLS



This is the new pellet crumbelizer Model 100, manufactured by Sprout, Waldron & Co., Inc., Muncy, Pa. It is designed for use with any make of pellet mill. The Crumbelizer can also be used as an integral unit with feeder attachments.

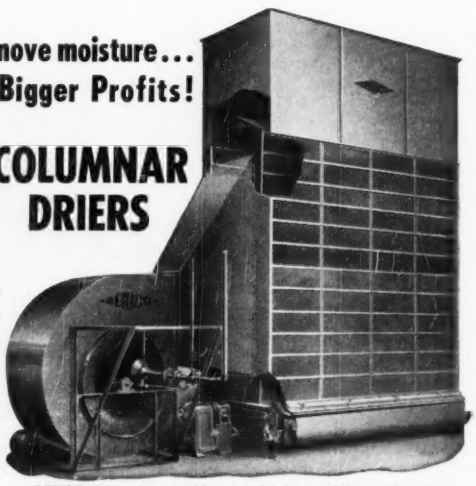

RECEIVING GARNER
TOP AIR-SEAL
GRAIN MOVEMENT DOWNWARD
WARM AIR PLENUM CHAMBER
SCREEN SECTIONS FOR LOW VELOCITY AIR DISCHARGE
SCREEN SECTIONS FOR LOW VELOCITY AIR DISCHARGE
DAMPER
COOLING CHAMBER
ADJUSTABLE FEED GATE & FEED ROLL
SCREW CONVEYOR DISCHARGE
DISCHARGE RATE OF GRAIN IS REGULATED BY VARIABLE SPEED MOTOR DRIVE

QUALITY-built to remove moisture... for Better Quality and Bigger Profits!

-BERICO- COLUMNAR DRIERS

End-view cross-section shows extreme simplicity of design that makes **BERICO** Columnar Driers so highly efficient . . . Soybeans are *constantly* subjected to *tremendous* quantities of low-temperature air while passing from hopper to discharge outlet.

Automatic thermostatic controls (Underwriter-approved); factory pre-fabricated; sturdy construction; quality materials and equipment for lowest operating and maintenance cost.



BERICO Drier, shown without cooler fan and fan enclosure. Special high carbon steel woven wire screens, forming 4 sides of dual, free-flowing columns, permit passage of tremendous quantities of low-temperature air through slowly moving mass of beans. Sizes for every capacity-need. Operate with Natural Gas, Oil, Butane or Propane.

H. M. SHANZER CO.

DRIERS • CONVEYING MACHINERY • ELEVATORS

85 BLUXOME STREET • SAN FRANCISCO 7 • CALIFORNIA

"That's like processing without

PENOLA HEXANE!"

SPECIFY PENOLA HEXANE — for more efficient, more economical processing. You get *all 8* of these important advantages when you use Penola Hexane. Purity • Stability • Balanced solvency • Lower vapor pressure • Narrow boiling range • Special handling • Immediate availability • Technical assistance by experts

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NEW YORK
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DETROIT
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Penola

WASHINGTON Digest

By PORTER M. HEDGE

Washington Correspondent for The Soybean Digest

1950 PROSPECTS. The Crop Reporting Board's report on farmers' intentions to plant is bullish for soybeans—during the spring months of 1950.

It indicates total plantings will be up only 18.3 percent from last year. It points to a crop only 6 to 8 million bushels above the 222 million produced last year—far lower than most officials have estimated.

There are other factors in the picture, however, which make the outlook somewhat bearish for soybeans next fall.

The first is the real possibility that acreage will be higher than indicated in the March intentions report. The report showed an increase in plantings of 2.1 million acres over last year.

Of this, 479,000 acres were in 13 Southern states—delta land shifted from cotton to soybeans. Of the remaining increase over 1949, a little under 1.5 million acres came in 10 Cornbelt states. This is way less than half the indicated reduction in corn for these states.

A second bearish factor for soybeans next fall is the 1950 loan rate. It's pretty sure to be 36 cents a bushel lower than the 1949 rate of $2.11, or down at least to $1.75. It may well be 66 cents lower, or down to $1.50 a bushel.

Commodity Credit Corporation still hadn't acted on the soybean loan at press time. It was waiting for action by Congress on the CCC price support fund bill—and for a more complete analysis of the plantings report.

A third bearish factor is the decision of CCC to make no storage payments on 1950-crop soybeans put under loan. The 1949 storage allowance is 7 cents a bushel on farm-stored loans, and 10 to 11½c a bushel on warehouse loans, depending on the area.

These will be dropped in 1950 for soybeans, wheat, and flaxseed. One reason is to put all grain crops on the same basis—no storage allowance is made for other grains now. Another is to reduce CCC costs.

Growers who obtain farm loans on soybeans will receive the full loan rate. Those who obtain warehouse loans either can receive the full loan rate and pay storage costs themselves, or have the full amount of the storage deducted at the time the loan is made. (There were indications at press time, however, that the decision to discontinue storage allowances might be reversed.)

The fourth bearish factor is the certain reduction in European aid (ECA) funds, which will reduce effective European demand for fats and oils, and cut U. S. exports.

ECA BILL. The Vorys amendment to the ECA appropriations bill has no chance of getting anywhere in Congress. It would in effect replace a billion dollars of ECA funds with farm surpluses from Commodity Credit Corporation.

When the proposal appeared in the headlines it had some first-off appeal for some congressmen. But as soon as they thought it through, any chance of the amendment passing evaporated.

The Administration has landed on it with both feet. Says it would force dumping of U. S. surpluses on Europeans; force them to take more than they want of some products and prevent them from getting as much as they need of other products.

Administration officials also point out it would put Commodity Credit Corporation in the role of a "relief" agency.

The Vorys amendment was eliminated in the foreign aid bill as passed by the House Mar. 31.

NORTON'S SURVEY. The acute shortage of food fats in Western Europe has ended. Most countries have less available for consumption than prewar. But supplies are reasonably adequate in relation to consumer purchasing power.

Production of butter and animal fats is up. Rapeseed output is up sharply. The 1949 olive oil crop is larger. Demand for U. S. fats, oils, and oilseeds won't be so urgent in 1950 as in 1949.

But to maintain late 1949 levels of consumption, Europeans as a group will need to import considerable quantities of U. S. fats and oils.

These are conclusions of Dr. L. J. Norton of the University of Illinois, who has completed a report on an eight-country survey for the Office of Foreign Agriculture Relations.

Dr. Norton says in effect that while the postwar boom in exports appears to be over, there still remains a substantial market in Europe which will provide outlets for some time—if prices are reason-

COTTONSEED MEAL
SOYBEAN OIL MEAL
PEANUT MEAL
Cake — Pellets — Cottonseed Hulls
Domestic and Export
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one part or complete plant
Expellers all sizes and makes. Various size Filter Presses.
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able, a steady supply can be assured, and merchandising is improved.

The eight countries studied are the United Kingdom, France, Belgium, The Netherlands, Western Germany, Denmark, Czechoslovakia, and Italy.

Dr. Norton says the supply of soft oils is still short in these countries. This is due mainly to the virtual absence of Manchurian soybeans, and sharply reduced shipments of peanuts and peanut oil from India.

Some European countries want to buy U. S. soybean oil or other soft oil for use in margarine. Demands are apt to be strongest from Western Germany, The Netherlands, Denmark, and Belgium.

"The importation of soybeans or peanuts in the form of seed has the advantage of providing materials for crushing industries as well as high protein feed for livestock," says Dr. Norton.

"Denmark and The Netherlands would at this time attach greatest importance to the feed consideration. Italy will desire some edible vegetable oils, primarily as a supplement to olive oil.

"The United Kingdom has access to sufficiently large non-dollar supplies of oilseeds, oils, and oil meals so that in view of its dollar position, that country is not likely to be a customer for U. S. supplies."

The policy in all the countries, says Dr. Norton, is to try to obtain supplies from non-dollar areas. But he suggests that it will be some time before they can rely on these areas. He also says it will be years before the prewar level of livestock can be restored.

"It is mainly in connection with soft oils needed in the European margarine industry that the great shortage of vegetable oils exists under present conditions."

Here is a brief "run-down" of short-term export prospects to individual countries:

The United Kingdom: Not interested in U. S. soybeans because of access to oilseeds in non-dollar areas. Also, the United Kingdom has adopted a policy of holding down consumption of oil meals to the quantities that can be bought in sterling or other non-dollar areas under trade agreements.

Denmark: Soybeans, soybean and cottonseed cake are the only U. S. fats, oils, and oilseed products likely to be sold in Denmark. Soybeans are desired as a raw material for the processing industry and for meal. Additional oilcakes are wanted in order to maintain and expand further the livestock industry.

The Netherlands: Should be in the market for fairly large quantities of American soybeans, flaxseed, and peanuts. The food oils are desired for the same purpose as in Denmark —margarine.

Belgium: There will be a market for U. S. supplies if the Belgian business men believe they can be resold at a profit either in Belgium or foreign currencies. Products which can be sold likely will include moderate quantities of lard, small quantities of edible tallow, fairly large quantities of inedible tallow, and modest quantities of soybeans and vegetable oils, according to prices and quality.

Italy: Like in Belgium, the volume of U. S. exports will depend on what Italian business men believe can be handled profitably. They will include small quantities of lard, perhaps some soybeans and other oilseeds, probably fairly large quantities of tallow, grease, and fatty acids of vegetable origin.

France: The market in France will depend on French government policies which, in turn, will be strongly influenced by the semi-official organization of the fats and oilseeds trades known as the GNAPO. Since the war, the GNAPO has exercised a monopoly over the imports

When you require { ✓ Scalping ✓ Aspirating ✓ Aerating }

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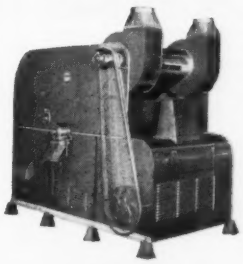
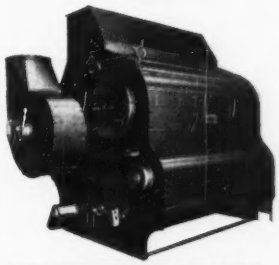


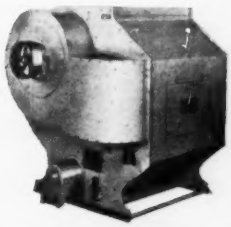
THE CARTER MILLERATOR

This Carter Millerator provides a refined scalping for the removal of material larger in diameter than the grain being handled, and much of the material substantially longer. The lower screen also is used for the removal of splits from soybeans. Dust, sand and small seeds are sifted out mechanically. Light screenings are removed by controlled aspiration. Write for illustrated booklet.



THE CARTER SCALPERATOR

Rough scalps any kind of grain without change of screens. In many cases it is used on soybeans directly ahead of dryers. Combines scalping and aspirating. Famous Squirrel Cage Scalping Reel is self-cleaning. Operates economically with no loss of good grain.



THE CARTER DUO-ASPIRATOR

Ideal for lighter-than-grain separations. It is an effective machine for hull removal. Positive control of air stream and grain stream insures maximum cleaning efficiency. Sturdy construction minimizes replacement and repair costs.

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of all fats, oils, and oilseeds into France.

It is unlikely that France will want U. S. lard, but that country probably will take some inedible tallow, and oilseeds and cakes.

Czechoslovakia: The fat supply is shorter than in any of the other countries. There is probably a market for some U. S. inedible tallow because the price is low and soap is scarce. Lard probably could be sold if its trade relationship with the United States were normal.

Western Germany: Should be in the market for large quantities of U. S. lard, tallow, oilseeds, vegetable oils, and fatty acids of vegetable origin. Present plans call for more emphasis on vegetable materials than on animal fats, but actual takings will be influenced by available supplies and prices in the United States as compared with other countries.

As long as dollar grants continue, says Dr. Norton, these countries will continue to import sizeable quantities from the U. S. The emphasis will be on oilseeds, vegetable oils, and tallow.

When the ECA program ends, greater difficulties will be experienced. All the countries plan to build up home production or to develop further the sources in non-dollar areas.

"The long-time prospects will depend primarily on three factors: (1) Production and supply trends in Europe and other non-dollar areas, (2) availability of dollar exchange to European countries and (3) the level of living which these countries can afford for their expanded populations, now 10 percent higher in the ERP countries than before the war."

—s b d—

CHANGE AT EMPORIA

Four directors of the Kansas Soya Products, Inc., Emporia, Kans., have bought the common stock in the corporation from members of the Lord family who have held controlling interest, according to the Emporia Gazette.

The four directors of the company, which operates processing plants in Emporia and Kansas City, Kans., are Kenneth T. Anderson, F. B. Ross, Joe J. Morris and Everett E. Steerman.

Elmer Buster, Topeka, has been employed as manager of the company. Buster has been employed for 19 years by Goffe-Carkener Grain Co.

Members of the Lord family who have been in active charge of the company since it was organized in 1940, have resigned their offices in Kansas Soya Products. They are Theodore W. Lord, Philip Lord and Richard Lord.

Kansas Soya Products, Inc., has also acquired the physical properties of the Lord Grain Co., Inc.

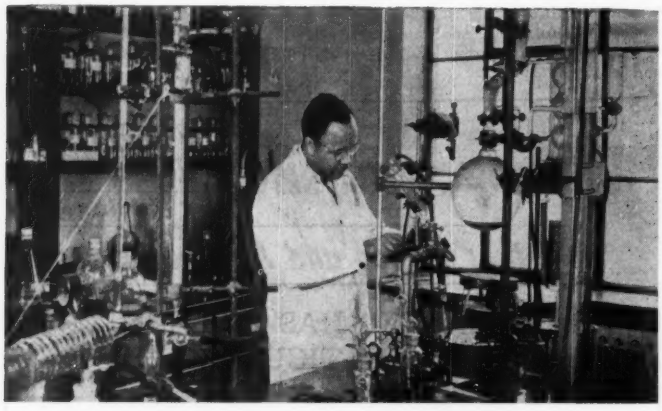
—s b d—

NEW KINTZ HEADS

The J. C. Kintz Co., Inc., Cedar Rapids, Iowa, will continue under the joint management of Emile E. Beatty and Mrs. Kintz, the firm announces.

J. C. (Jake) Kintz, the company's president, died Jan. 18. The firm was organized in 1939 and incorporated in 1947.

Mrs. Kintz will continue as office manager and secretary-treasurer. Beatty will continue to have charge of sales and will also assume some of the duties of management.



Dr. Percy L. Julian, director of research of the Glidden Co.'s soya products division, in his laboratory. His synthesized hormone compounds, and lately those for treatment of arthritis, are making a tremendous impact on medical research. Glidden's extensive line of soya products includes oils and their by-products for edible, industrial and pharmaceutical uses, plywood adhesives, insecticides, isolated proteins for a wide variety of coatings, water and oil paints and resin extenders. Dr. Julian is a consistent reader of SOYBEAN DIGEST. And the Glidden Co. is a regular advertiser in its pages.

New Markets for You!

Dr. Julian and many men like him in manufacturers' laboratories are creating vast new markets for soy products. Each new product means a new market for many kinds of machinery . . . for services. ARE YOU REACHING THESE NEW MARKETS?

The SOYBEAN DIGEST is the only medium where your sales message can contact the firms manufacturing a thousand and one soy products . . . where you can talk to their key people. You should not miss this chance to reach out for tomorrow's markets. You "ring the bell" with your sales message in the SOYBEAN DIGEST because it is the only magazine read by the **entire** soybean industry.

SOYBEAN DIGEST circulation is concentrated in the leading soybean states of Illinois, Iowa, Indiana, Ohio, Missouri, Minnesota and Arkansas. It reaches into 44 of the 48 states, Washington, D. C., and most foreign countries where soybeans are grown. The DIGEST is read by producers, processors, grain handlers and others interested in soybeans as a crop and an industry, as well as by manufacturers of soy products.

Address Inquiries to the

SOYBEAN DIGEST, Hudson, Iowa

--- MARKET STREET ---

We invite the readers of THE SOYBEAN DIGEST to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here. Rate: 5c per word per issue. Minimum insertion $1.00.

FOR SALE—OIL MILL EQUIPMENT. Anderson Expellers, French Screw Presses all models, as is or rebuilt for specific materials. Pittock and Associates, Glen Riddle, Penna.

WANTED: Interested in purchasing small solvent pilot plant suitable for soybeans. Ton per hour or less OK. Will move. Reply Soybean Digest, Box 319P, Hudson, Iowa.

FOR SALE—2,000 bu. non-certified S-100 soybeans; 2,000 bu. non-certified Ogden soybeans. Thomas P. McCloskey, Jr., Charleston, Mo.

FOR SALE—1000 bu. Hawkeye seed beans, grown in Mower County, Minnesota, from certified seed. $3.00 per bu. in 20 bu. lots. Martin Bustad, Austin, Minn.

SEED DIRECTORY

ARKANSAS

Burdette—Hale Seed Farms, 2,000 bu. certified Hale Ogden 2.

Stuttgart—Jacob Hartz Seed Co., Inc., P.O. Box 109, Red Tanner, O-Too-Tan, Brown Biloxi, Mamloxi, Volstate.

Stuttgart—E. B. Swindler, Box 627.

ILLINOIS

Bloomington—Funk Bros. Seed Co., certified Hawkeye, Lincoln, Wabash.

Blue Island—Irvin Holl, 1665 Broadway, 450 bu. non-certified Hawkeye.

Cantrall—J. Harold Canterbury, 1,500 bu. certified Hawkeye, 800 bu. certified Lincoln, 2,000 bu. certified Wabash.

Capron—John W. Sjostrom, Rt. 1, 1,000 bu. certified Hawkeye.

Carthage—Junior Dittmer, 1,000 bu. certified Wabash, 300 bu. certified Hawkeye, 300 bu. certified Lincoln from hand selected seed.

Charleston—Dale C. White, Rt. 2, 400 bu. certified Wabash. Will deliver.

Fairmount — Trisler Seed Farms, truck or carload lots of certified Wabash, Lincoln, Hawkeye.

Gibson City—Noble Brothers, certified and uncertified Hawkeye, Wabash, Lincoln and black soybeans.

Kansas—Harvey L. Washburn, 1,000 bu. certified Wabash.

Manhattan—Earl Keniston, Route 1, 500 bu. certified Hawkeye.

Orland Park—James Tilsy, 167 St. & 118 Ave., 1,800 bu. certified Hawkeye.

Pontiac—Pike Hybrid Corn Co., carload and truck lots, certified Hawkeye, Lincoln, Wabash, carload and truck lots, non-certified Bavenger.

Roseville—Knox College Farms, Samuel E. LaGrow, Box 384, 1,400 bu. certified Hawkeye, 600 bu. certified Lincoln.

San Jose—Kelly Seed Co., 15,000 bu. non-certified Lincoln, 8,000 bu. non-certified Hawkeye, 5,000 bu. certified Hawkeye.

Ursa—Frank W. Lewis, blue tag certified soybean seed, 2,800 bu. Hawkeye, 2,300 bu. Wabash, 2,650 bu. Lincoln.

Woodstock—Pell-Bari Farms, Inc., 305 Clay St., 20,000 bu. certified Hawkeye.

INDIANA

Anderson—Roy Scott, Rt. 5, 1,000 bu. certified Hawkeye, 500 bu. certified Lincoln.

Cedar Lake—Frank De Vries, 2,000 bu. certified Hawkeye.

Chandler—Bernard V. Wagner, Rt. 2, 3,000 bu. certified Wabash.

Remington—Chester B. Biddle, 1,200 bu. certified Hawkeye.

Remington—Silver Lane Farms, 2,500 bu. certified Lincoln, 5,000 bu. certified Hawkeye, 1,500 bu. certified Earlyana, 350 bu. certified Mandarin-Ottawa.

Valparaiso — Wyckoff Hybrid Corn Co., Rt. 3, 1,200 bu. certified Earlyana, 1,300 bu. certified Richland, 3,200 bu. certified Hawkeye.

Windfall—Byron Legg & Sons, Rt. 2, 400 bu. certified Hawkeye, 300 bu. certified Lincoln.

Worthington—H. H. Sloan & Sons, 2,500 bu. certified Wabash, 1,000 bu. certified Hawkeye.

IOWA

Galva—L. J. Baxter, 1,800 bu. Iowa blue tag certified Hawkeye.

Hudson—Strayer Seed Farms, 1,000 bu. Bansei.

Iowa Falls—Leonard E. Hoffman, Rt. 1, 1,000 bu. certified Hawkeye.

Remsen—Frank Lenertz, 700 bu. certified Hawkeye, germination 95%, purity 99.61.

Sabula—Behan & Helfert, Rt. 1, 400 bu. certified Lincoln.

KANSAS

Carbondale—Lowell Chamberlin, 500 bu. certified Wabash.

MICHIGAN

Blissfield—Sam Beill, Rt. 1, 400 bu. certified Hawkeye.

MINNESOTA

Austin — Martin Bustad, 1,000 bu. Hawkeye from certified seed.

Bricelyn—Russell M. Sime, 400 bu. blue tag certified Hawkeye, germination over 90%.

Montevideo—John W. Evans, 300 bu. non-certified Capital, 150 bu. certified Ottawa-Mandarin, 500 bu. non-certified Ottawa-Mandarin.

Sleepy Eye—Henry Leitschuh, 350 bu. uncertified Korean.

Winona—Seed Growers, Inc., 1,500 bu. certified Ottawa-Mandarin.

MISSOURI

Malden—T. F. Baker, 1,400 bu. certified S-100, 1,600 bu. certified Ogden.

St. Louis—Cypress Land Farms Co., 314 Merchants Exchange, 400 bu. certified S-100, 400 bu. non-certified S-100, 400 bu. certified Ogden, 400 bu. non-certified Ralsoy, 500 bu. certified Wabash, 400 bu. certified Hawkeye, 1,000 bu. non-certified Lincoln.

NEBRASKA

Elk City—Wahlgren Seed Farms, 900 bu. certified Hawkeye.

NORTH CAROLINA

Raleigh—H. W. Davis, Hunter St., 450 bu. certified Roanoke.

OHIO

Ada—J. R. Spar & Son, Rt. 1, 1,000 bu. certified Hawkeye, 500 bu. certified Monroe.

Avery—J. Schlessman & Sons, 300 bu. certified Monroe, 1,000 bu. certified Hawkeye, 500 bu. certified Lincoln, 1,000 bu. non-certified Hawkeye, 1,000 bu. non-certified Lincoln.

Bowling Green—Henry C. Swartz, Rt. 2, 215 bu. certified Monroe.

Delphos—Lawrence W. Adam, Rt. 1, 225 bu. Ohio certified Monroe.

Springfield—Martin Gainer, Rt. 3, 400 bu. certified Hawkeye, 175 bu. certified Monroe, 100 bu. certified Lincoln.

CANADA

Muirkirk—Geo. E. Phillips, Rt. 2, Muirkirk, Ontario, 1,500 bu. registered No. 1 Canadian Capital.

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This organization has established a sub-division under the direction of Mr. A. W. Loengood which renders available his extensive experience in this field, in combination with the long experience and construction facilities of the General Construction Division, in Bldg. constr., Mech. & Process Piping installations.

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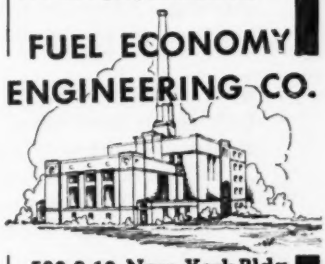

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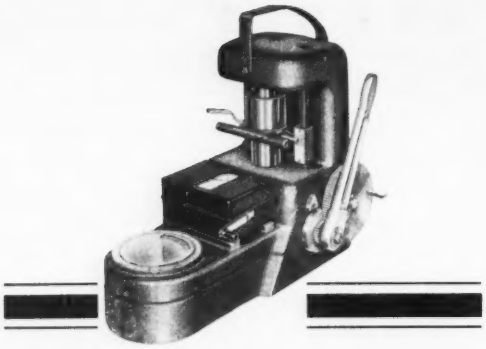

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In The MARKETS

MARCH MARKETS UP

Soybean, meal and oil markets all showed increased strength in March.

Soybean and oil futures reached new highs for the current season. Meal was at the highest point since the first of the year though considerably under going prices at the opening of the 1949-50 season.

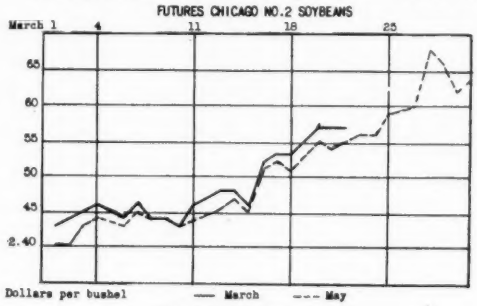
Soybean futures pushed steadily up during the month with a month's spread of 19c in March futures. There was also a rising market for soybean oil, but the total rise was only 1c during March. The meal market suffered a bad break on the 10th but all losses were recovered the following week. All markets sagged some the last few days in March.

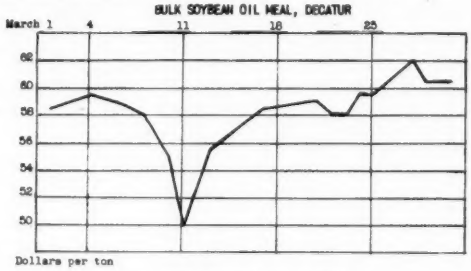
Stimulating the soybean futures market were the sales for export, strength in the wheat market and the growing feeling that supplies will run short before the end of the season. Export purchases by the government were not impressive but they stimulated the bullish feeling. Germany still has a considerable quantity of soybeans to buy.

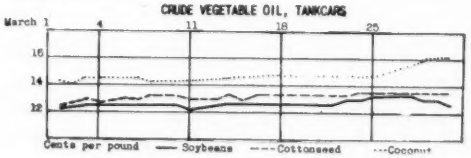
Commodity Credit Corporation purchases included 535,000 bushels of soybeans in the Feb. 27-Mar. 3 period, and 174,333 bushels Mar. 6-17.

Economic Cooperation Administration authorized 2.4 million dollars to Denmark for purchase of cake and meal. Additional authorizations were $600,000 for purchase of soybeans and $600,000 for purchase of soybean oil.

Some processors reduced their production due to the







coal strike, and some buyers preferred to stay out of the market for the time being after the strike was settled.

Some Expeller plants resumed operations and the production of 41% meal increased during March.

There was a fair export business for March out of New Orleans. But on the whole the domestic demand was light.

The Census Bureau report showing vegetable oil consumption up and supplies less than expected strengthened the market for vegetable oils.

Commodity Credit Corporation approved contracts to buy an additional 81 million bushels of bin-type grain storage. Last year CCC added 328 million bushels of the bin-type capacity to the 44 million it already owned.

Chicago Board of Trade board of directors voted to reduce the minimum initial margin on soybeans from 20c per bushel to 15c. Amendment became effective Mar. 13.

Chicago No. 2 soybeans March futures opened at $2.43 the low, and closed Mar. 22 at $2.57, the high. May opened at $2.40 and closed at $2.64 for the month. May high was $2.68 Mar. 28.

Bulk soybean oil meal, Decatur, opened for the month at $58.50 and closed at $60.50. High was $62 Mar. 28. Low was $50 Mar. 11.

Crude soybean oil in tankcars opened at 12¼c, the low, and closed at 12¾c. High was 13¼c Mar. 28.

MEMPHIS SOYBEAN OIL MEAL FUTURES CLOSINGS MAR. 31*

Decatur sacked basis, per ton: May, flat 65.25; July, flat 65.50; Oct., flat 51.50; Dec., 50.00@50.25; Jan., flat 50.00. Sales: 5,300 tons.

NEW YORK CRUDE SOYBEAN OIL FUTURES CLOSINGS MAR. 31*

Apr., 13.00n; May, 12.80b; June, 12.50b; Aug., 11.90b; Sept., 11.85b; Nov., 10.30b; Dec., 10.15b. Jan. '51, 9.85b; Feb. and Mar., 9.85n. Sales: 15 contracts.

* Reported by the Chicago Journal of Commerce.

● **SOYBEAN STOCKS.** Production and Marketing Administration's commercial grain stock reports for March.

	Mar. 7	Mar. 14	Mar. 21	Mar. 28
Atlantic Coast	987	973	944	871
Gulf Coast	156	574	177	206
Northwestern and Upper Lake	698	673	592	560
Lower Lake	5,507	5,550	5,576	5,535
East Central	2,184	2,062	1,941	1,692
West Central, Southwestern & Western	1,972	1,910	1,873	1,704
Total current week	11,504	11,742	11,163	10,568
Total year ago	9,735	8,638	8,386	7,625

● **SUPPORT PROGRAM.** U. S. Department of Agriculture has announced that a total of 14,986,708 bushels of 1949-crop soybeans had been put under Commodity Credit Corporation price support by Jan. 31, according to preliminary figures.

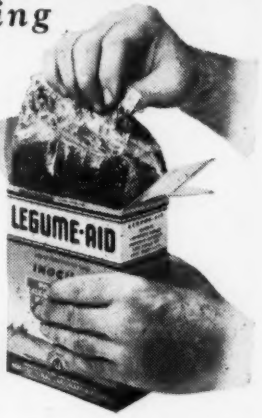
Closing date for loans and purchase agreements was Jan. 31.

Total bushels of 1949-crop soybeans placed under the support program by Jan. 31 were as follows: farm stored loans 4,496,620; warehouse stored loans 5,814,369; purchase agreements 4,675,719.

NO *waste* **--- NO** *loss*

NO *measuring*

Inoculation of soybean seed becomes easy, sure and effective when you use this non-sticky humus base inoculant. It coats the seeds visibly, thoroughly and quickly—yet never gums the planting machine. And in addition, you gain both speed and economy as well.



LEGUME-AID

The famous inner lined carton package protects the potency of the nitrogen fixing bacteria and holds exactly enough inoculant to treat five bushels of soybeans. Order what you need. Open each package fresh as you treat each batch of seed. No waste, no loss, no measuring. No inoculant does more for soybeans than LEGUME AID. Tell your dealer you want it.

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AGRICULTURAL LABORATORIES, INC.

1322 Chesapeake Ave. Columbus 2, Ohio

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THE FACT STILL REMAINS THAT SUPERIOR ELEVATOR CUPS "DP" - "OK" - "CC" - "V" are MADE STRONGER will LAST LONGER have GREATER CAPACITY

and will operate more efficiently at less cost than other elevator cups.

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for names of distributors and analysis form No. 20

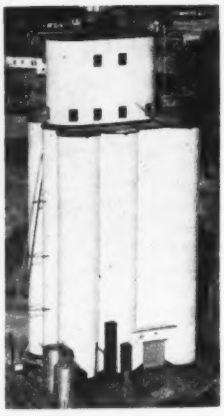
SOYBEANS: QUANTITIES PLEDGED FOR GOVERNMENT PRICE SUPPORT LOANS IN SPECIFIED STATES AND THE UNITED STATES, AND TOTAL AMOUNT OF SUCH LOANS, CROPS OF 1941-1949*

Crop year	Illinois	Iowa	Indiana	Ohio	Missouri	Minnesota	Other States	United States	U. S. total amount loaned
					Bushels				1,000 dollars
1941	56,780	27,110	39,222	17,321	1,944	2,324	3,987	148,688	154
1942	937,040	1,251,037	828,935	154,674	91,565	71,014	307,111	3,641,376	5,526
1943	88,486	85,929	32,432	10,806	12,246	10,252	21,166	261,317	480
1944	25,182	25,770	7,996	3,564	9,389	3,963	3,223	79,087	165
1945	9,256	11,949	1,845	827	1,967	2,110	3,549	31,503	67
1946	723	5,640	0	118	0	1,912	0	7,493	15
1947	804	2,464	2,188	530	0	2,840	624	9,450	20
1948	985,314	4,072,839	210,203	70,791	544,143	966,753	124,885	6,974,928	15,516
1949**	1,278,294	3,329,084	276,769	268,165	644,792	1,117,912	916,574	7,831,590	16,732

* Under terms of these loans, made by the Commodity Credit Corporation, the borrower had the option of repaying the loan within a specified period or of turning the collateral over to the Commodity Credit Corporation.

** As of Dec. 31, 1949. Some additional quantities were placed under loan before the closing date, January 31, 1950.

Source of data: Production and Marketing Administration, U. S. Department of Agriculture.



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● OIL MILL PRODUCTS. Reported by Bureau of Census, Department of Commerce.

PRIMARY PRODUCTS EXCEPT CRUDE OIL, AT CRUDE OIL MILL LOCATIONS: PRODUCTION, SHIPMENTS AND TRANSFERS AND STOCKS, JANUARY 1950—DECEMBER 1949

Products	Production		Shipments and transfers		End of month stocks	
	Jan. 1950	Dec. 1949	Jan. 1950	Dec. 1949	Jan. 31, 1950	Dec. 31, 1949
SOYBEAN:						
Cake and meal†	401,127	407,182	386,761	402,291	61,747	47,381
Lecithin‡	1,129,614	1,004,226	1,187,573	915,552	938,536	996,495
Edible soy flour, full fat†	228	391	(*)	(*)	251	(*)
Edible soy flour, other†	4,068	6,549	4,015	6,382	2,353	2,300
Industrial soy flour†	(*)	(*)	(*)	(*)	(*)	(*)

(*) Not shown to avoid disclosure of individual operations.
† Unit of measure in tons. ‡ Unit of measure in pounds.

SOYBEANS: RECEIPTS, CRUSHINGS AND STOCKS AT OIL MILLS, BY STATES, JANUARY 1950—DECEMBER 1949
(Tons of 2,000 pounds)

State	Receipts at mills		Crushed or used		Stocks at mills	
	Jan. 1950	Dec. 1949	Jan. 1950	Dec. 1949	Jan. 31, 1950	Dec. 31, 1949
U. S.	293,982	†386,514	507,279	518,688	1,781,943	†1,995,240
Arkansas	1,494	4,347	11,338	8,265	64,137	73,981
Illinois	129,953	171,488	193,996	194,501	690,861	754,094
Indiana	16,605	†24,758	36,968	38,848	172,318	†192,681
Iowa	52,955	60,433	93,792	96,102	239,504	280,341
Kansas	8,258	6,835	10,615	13,300	19,009	21,366
Kentucky	11,676	(*)	15,980	18,251	(*)	(*)
Minnesota	11,796	15,262	13,892	17,124	16,040	18,136
Missouri	9,371	16,328	21,819	21,964	97,703	110,151
Nebraska	(*)	(*)	5,309	5,088	12,832	(*)
N. Carolina	1,522	6,984	7,665	7,427	37,949	44,092
Ohio	31,536	43,568	64,028	65,241	250,801	283,293
Texas		(*)				(*)
All other	18,816	36,511	31,877	32,577	180,789	216,295

† Revised. * Included in "All other" to avoid disclosure of individual operations.

SOYBEAN PRODUCTS: PRODUCTION AND STOCKS AT OIL MILL LOCATIONS, BY STATES, JANUARY 1950—DECEMBER 1949

State	Crude oil (thousand pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	Jan. 1950	Dec. 1949	Jan. 31, 1950	Dec. 31, 1949	Jan. 1950	Dec. 1949	Jan. 31, 1950	Dec. 31, 1949
U. S.	165,088	166,855	32,593	30,589	401,127	407,182	61,747	47,381
Arkansas	3,272	2,432	1,046	897	8,951	6,379	3,967	1,795
Illinois	65,123	64,474	8,312	8,949	148,432	146,308	16,814	10,680
Indiana	11,915	12,449	1,802	1,623	29,499	31,534	1,327	926
Iowa	30,565	31,144	6,990	6,354	76,968	78,639	9,260	5,088
Kansas	3,726	4,157	1,065	1,087	8,661	10,741	5,137	(*)
Kentucky	5,634	6,067	649	370	12,567	14,300	1,174	500
Minnesota	4,251	5,321	1,496	2,264	11,249	13,734	3,366	3,434
Missouri	6,590	6,651	1,874	1,798	17,594	18,305	2,534	1,494
Nebraska	1,609	1,502	249	243	4,498	4,313	(*)	(*)
N. Carolina	2,065	2,016	527	548	6,005	5,997	3,735	5,821
Ohio	20,785	20,788	5,103	3,581	50,916	50,591	2,824	2,588
Oklahoma							(*)	(*)
All other	9,553	9,914	3,480	2,875	25,787	26,341	11,609	15,055

* Included in "All other" to avoid disclosure of individual operations.

● FACTORY USE SOYBEAN OIL.

Factory production of crude soybean oil in January totaled 165,088,000 lbs., reports Bureau of the Census. Production in December was 166,855,000 lbs.

Factory production of refined soybean oil in January totaled 130,317,000 lbs.; in December 119,251,000 lbs.

Factory consumption of crude soybean oil in January was 140,200,000 lbs.; in December 128,529,000 lbs.; Factory consumption of refined soybean oil in January was 117,599,000 lbs.; in December 104,727,000 lbs.

Factory and warehouse stocks of crude soybean oil totaled 82,877,000 lbs. Jan. 31; and 90,116,000 lbs. Dec. 31. Factory and warehouse stocks of refined soybean oil totaled 66,650,000 lbs. Jan. 31; and 59,985,000 lbs. Dec. 31.

Crude soybean oil entered into the following uses in January: soap 110,000 lbs.; paint and varnish 246,000 lbs.; lubricants and greases 15,000 lbs.; other inedible 1,262,000 lbs.

Refined soybean oil found the following uses in

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January: shortening 52,186,000 lbs.; other edible 6,234,000 lbs.; paint and varnish 7,439,000 lbs.; lubricants and greases 12,000 lbs.; linoleum and oilcloth 2,986,000 lbs.; other inedible 5,756,000 lbs.

Hydrogenated edible soybean oil was used in the following products in January: shortening 9,578,000 lbs.; margarine 18,774,000 lbs.; other edible 484,000 lbs.

● **SOYBEAN GLUE.** Consumption of soybean glue by the softwood plywood industry in December totaled 3,036,000 lbs. compared with 3,047,000 in November; and 2,701,000 lbs. in Dec. 1948, reports Bureau of the Census.

Consumption of phenolic resin glue in December was 2,986,000 lbs. Total consumption of all glues by the plywood industry was 6,933,000 lbs. in December compared with 6,831,000 lbs. in November; and 5,597,000 lbs. in Dec. 1948.

Stocks of soybean glue Dec. 31 totaled 1,384,000 lbs.; Nov. 30, 1,606,000 lbs.; and Dec. 31, 1948, 1,408,000 lbs.

● **SHORTENING SHIPMENTS.** Reported by Institute of Shortening and Edible Oils, Inc., in pounds.

Week ending Feb. 25	5,314,622
Week ending Mar. 4	7,561,970
Week ending Mar. 11	6,786,395
Week ending Mar. 18	5,820,941
Week ending Mar. 25	5,209,153

Grand total of shortening and edible oil shipments were 264,126,000 lbs. in January, the Institute reports.

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TO THE EDITOR:

The report on soybean stocks to which your letter (of Feb. 2) refers originates in this Bureau.

In bringing together data on stocks of soybeans in the various segments of the country's storage facilities and compiling these data into a consolidated report, the Bureau of Agricultural Economics does not guarantee the accuracy of data published by other agencies. As you know, stocks in terminals are reported by the Grain Branch, PMA and stocks in processing plants by the Bureau of the Census. We are striving to serve as coordinators of that data and are working toward greater accuracy in the consolidated report.

Our check of the probable maximum discrepancy in the Jan. 1, 1950 soybean stocks report does not quite agree with the figures quoted in your letter. The table below shows what we have developed to date. After a review of the data we believe you will find this a more realistic statement.

Soybeans: Supply and Disappearance, 1949 Crop

	Thousand Bushels
October 1, 1949 carry-over stocks in all positions	3,107
1949 production	222,305
1949-50 supply	225,412
Reported stocks in all positions January 1, 1950	180,106
Computed disappearance October-December quarter	45,306
Reported processings—Bureau of the Census, October-December quarter	51,950
Exports, October-December quarter	4,850
Possible 1949 soybeans processed before October 1, 1949	7,000
Estimated soybeans fed on farms (October-December)	750
Total disappearance to January 1, 1950	64,550
Indicated discrepancy	19,244

A similar discrepancy occurred in the report as of Jan. 1, 1949, but "washed out" as the marketing season progressed. The causes for the current discrepancy and the explanations are virtually identical with those for the situation a year earlier. A rather full discussion was published in your magazine, the Soybean Digest, on page 61 of the Mar. 1949 issue, to which you are respectfully referred.

Your statement in regard to farmer-owned beans may be a part of the explanation. It is possible that some farmers reported as farm stocks the quantities they had under loan in off-farm positions which could result in some duplication.

In our opinion, however, any duplication is far more general than this, and no one stocks or supply figure should be overlooked in allocating the causes for the discrepancy. On the other hand, the stocks data are felt to be equally as reliable as the data on processings or other disappearance which originate with the various agencies.

So long as these data originate in the several different agencies and there is no quick way of checking for duplications, we feel there is little possibility of accurately locating the cause of the discrepancy as a basis for a corrected announcement. We hope the situation will have cleared up before the Apr. 1 report is issued.—*S. R. Newell, assistant chief, Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C.*

The letter referred to was written by Editor Geo. M. Strayer and pointed out that the report of soybean stocks on Jan. 1 indicated more soybeans in all positions than were actually produced in 1949.—Editor.

LETTERS

Favors Standards

TO THE EDITOR:

Our experience with the new federal standards for soybeans has been entirely satisfactory. We have had no complaint from processors as to the quality of beans received except on occasional cars where obviously there had been a mixup at the local elevator and some other grain than soybeans got into an occasional shipment.

I don't recall that we have had more than three or four such cases on this year's crop which is about normal for any year.

As you are no doubt aware or have been advised, liberalization of the percentage of combined foreign material and dockage has about eliminated both factors as they affect price and all the misunderstandings and griping that went along with the old practice where 1 percent of dockage was the limit, have been eliminated.

We can not understand why any buyer who has had an unfortunate experience with the liberalized standards does not specify at the time of purchase the maximum combined amount of dockage and foreign material he will accept at contract price and fix his discounts for any excess.

I would expect that beans moving through terminal elevators might be mixed out with the maximum amount of foreign material allowed for the grade sold and I would also suspect that in many cases mixed with the original soybeans would be foreign material which has but little commercial value.

If I was buying 2 Yellow Soybeans from a terminal, particularly if I was buying for export, I would expect beans of no better quality than would meet the minimum requirements for the grade. To avoid the delivery of such beans, the buyer need only specify that he is buying 2 Yellow Beans not to exceed 1 percent foreign material. But no buyer can expect to insert that provision in his contracts without paying a premium.

I personally feel very strongly that we should have more experience with the revised standards before we return to those recently superseded. —*Fred Maywald, grain department, Farmers Grain Dealers Association of Iowa, Des Moines, Iowa.*

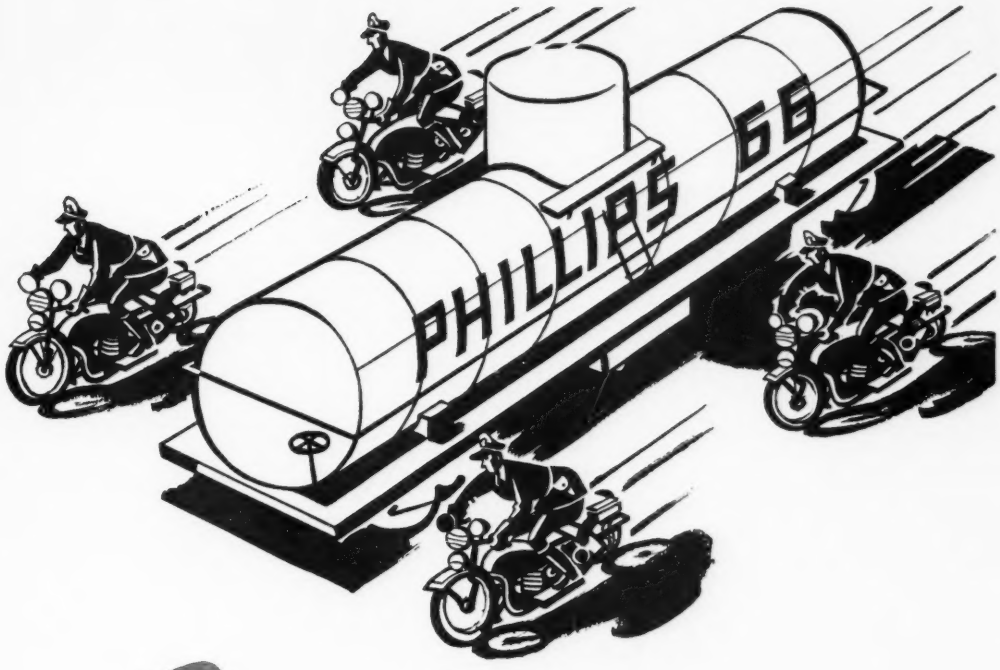
Hurts Whole Crop

TO THE EDITOR:

Where the trouble comes on exports is that practically all of the exports originate with a terminal grain elevator. Business of a terminal grain elevator is to buy grain and blend the various grades, making a suitable grade for sale. That is where the terminal elevator makes its money. It would seem then that the terminal house will take advantage of the grading standards on any sales of soybeans whether they go for export or to a processor.

It only goes to prove that when you make a more lenient grading standard, it tends to make for a poorer quality crop all down the line from farmer to ultimate user. As processors we can only take into consideration that we will get beans with considerably more foreign material and dockage and will make our buying price lower accordingly. This means then that the good farmers who clean the beans are not going to get any more than the poor farmer who takes advantage of doing a poor job of cleaning and also the elevators who take advantage of the situation by adding foreign material and dockage.

I certainly wasn't in favor of these changes. I have always maintained that anything that makes for a poorer quality crop hurts the crop as a whole. We should strive to get better quality rather than poorer quality.—*Donald B. Walker, manager soybean and oil meal division buying department, Ralston Purina Co., St. Louis Mo.*



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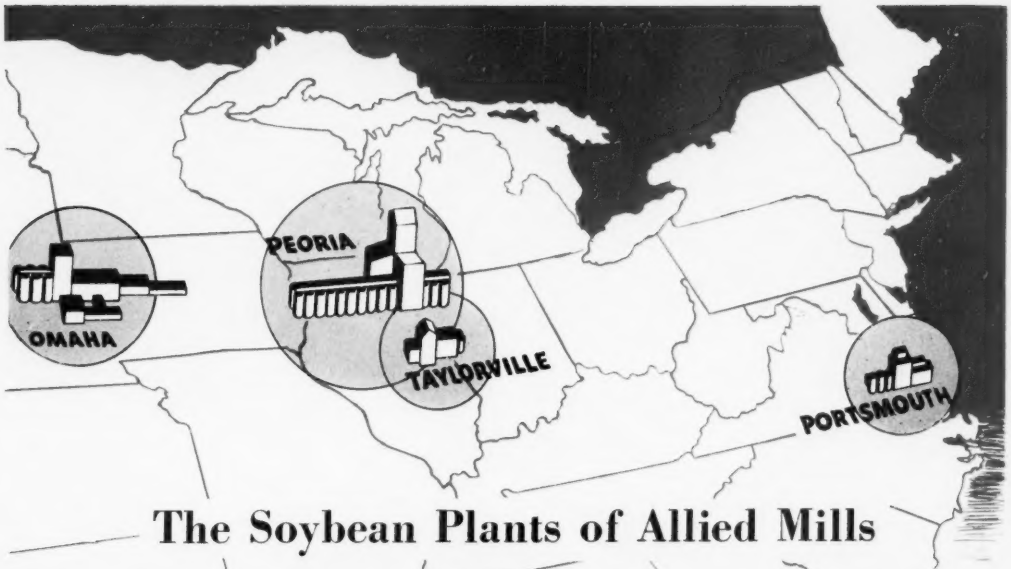

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